

CRAFTING DESIGN

Translating Haute Couture Craft Productions
into Architectural Design

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This thesis is dedicated to the ones who see my potential in the times where I cannot.

This thesis is dedicated to my family.

Abstract

The notion and practice of 'craft' is present in all cultures, and in its broadest compass, reflects the human desire to manifest subjective aspirations through matter. As a concept, it beholds a complexity that extends far beyond the vague definition of 'skillful making.' Preceding all recognized disciplines, the historical development of craft suggests a common embodied identity that is inherently engrained within our very individual framework. Several theorists recognize that there is great validity in craft methodologies, ranging from deep knowledge of materials to the relationships between making and ethical and moral awareness. Good architecture calls for this existential wisdom, highlighting the relevance and necessity for such discussions.

Through the derived and adapted knowledge of related design industries, architecture strengthens its understanding of human conditions and needs. Haute couture, an accredited sector within the fashion industry shows many similarities to architecture. Considering clothing as artifacts that are more than a response to functional requirements, haute couture exercises the design and creation of custom-made objects within the context of a strict and controlled professional environment. The design of haute couture garments and accessories revolves around proportions of the human body, and often reflects the cultural and stylistic priorities of its time. Beyond these surface-level similarities, however, both architecture and haute couture operate at the nexus of high-quality design and craft. Despite the many parallels, fashion is often not recognized as a socially valuable practice, especially in association with a heroic discipline such as architecture.

Concluding in the architectural manifestation of Le Musée des Métiers de la Haute Couture, this thesis

will expose the craft productions of haute couture to the general public of Paris, revealing and curating the making of the artifact. Considering analogical operations as part of the design process (Chupin, 2010), this dissertation extracts understandings of craft principles from the discipline of haute couture and translates the findings into an architectural design, resulting in a dialogue between the two disciplines. Synthesizing these similarities unveils parallels, as well as differences, which encourages a critical questioning of the contemporary approach to architecture.

The structure of this thesis commences with interpretations of fundamental texts that probe the notion of craft. Comprehending the hand as a thinking entity (Pallasmaa, 2009), craft as a cultural phenomenon (McEwen, 1993), and architecture as an interdisciplinary art form (Trasi, 2001) serves to define the design process of this thesis project that is anchored in the craft of haute couture. Recognizing craft as a means of material consciousness and moral awareness (Sennett, 2008) that, by consequence, is imperative in the creation of meaningful architecture, will emphasize the necessity for this dialogue. In search of fresh perspectives, the thesis puts forth three main analogical operations for the design of the building: between the pleat and the structure, the seam and the connections, and embroidery and superimposed ornamentation. These analogical operations between fashion and architecture are explored concurrently through the materialization of a full-scaled garment and the design of the building. This thesis project offers a critical proposal for how we might strengthen the process of architectural design in the technological age.

Craft, Analogy, Haute Couture, Fashion, Embodied Knowledge, the Hand, Translation, Material Production, Paris, France, Métiers, Museum, Underground Architecture, Skill, Architecture.

Index

Abstract

Image Citations

03 The Introduction

Part One

- 09** The Theories of Craft: Material and Ethical Awarenesses of the Hand
- 15** The Culture of Craft: Propriety of the Public Domain
- 21** The Parallels Between the Crafts: Haute Couture and Architecture

Part Two

- 27** The Project Site: Paris, the Third, and the Square
- 33** The Underground: Architecture and Subterranean Paris
- 37** The Museum: a Typology of France
- 39** The Museum: a Program for the Métiers of Haute Couture

Part Three

- 47** The Design Process: Analogy and Translations
- 53** The Pleat, Seam, and Embroidery
- 55** Le Musée des Métiers de la Haute Couture

71 The Conclusion

Sources

- 75** Endnotes
- 78** Bibliography

List of Images

Images are listed in order of occurrence.

- 01 *Herberger's in Fargo Will Soon Close*, retrieved from <http://www.westfargopioneer.com/news/4438565-whats-future-empty-big-box-stores-f-m-will-soon-have-vacant-spaces-equal-10-football>, 2018.
- 02 *Marqués de Riscal Hotel in Elciego*, retrieved from Photograph. <http://www.achievement.org/achiever/frank-gehry/>, 2006.
- 03 *Dresses from Madame Grès on Display at the Musée Bourdelle in Paris*, retrieved from, Photograph. <https://www.nytimes.com/2011/04/19/fashion/19iht-figres19.html>, 2011.
- 04 *Craft*, retrieved from <https://www.merriam-webster.com/dictionary/craft>, 2019.
- 05 *Craftsman*, retrieved from <https://www.merriam-webster.com/dictionary/craftsman>, 2019.
- 06 *Wirkkala Made the Glassblowing Moulds Himself*, retrieved from http://www.wirkkala.fi/e_wirkkala/Biography/Pages/1971-1975.html#0, 1971.
- 07 *Youth and Centaur*, retrieved from https://library-artstor-org.libweb.laurentian.ca/asset/ARTSTOR_103_41822003527395, 447-436 B.C.
- 08 *Centaur and Woman*, retrieved from https://library-artstor-org.libweb.laurentian.ca/asset/ARTSTOR_103_41822003527437, 447-436 B.C.
- 09 *Centaur and Youth*, retrieved from https://library-artstor-org.libweb.laurentian.ca/asset/ARTSTOR_103_41822003527502, 447-436 B.C.
- 10 *Brodeur: Manus X Machina: Fashion in an Age of Technology*, 14, 1763.
- 11 *Métier*, In *Enlightening the World*; 251-64, 2005.
- 12 *Hierarchy of the haute couture atelier*, Image by Author, 2019.
- 13 *Inside the Chanel Couture Atelier*, retrieved from <http://www.anothermag.com/fashion-beauty/gallery/7430/inside-the-chanel-couture-atelier/3>, 2015.
- 14 *Major Sites of Haute Couture*, Image by Author, 2019.
- 15 *Vue du Square des Arts et Métiers, 1878*, retrieved from https://commons.wikimedia.org/wiki/File:Vue_du_Square_des_Arts_et_M%C3%A9tiers,_ca._1853%E2%80%931878.jpg, 1878.
- 16 *Châlet des petits marchands du Square des Arts et Métiers*, retrieved from https://commons.wikimedia.org/wiki/File:Charles_Marville,_Ch%C3%A2let_des_petits_marchands_du_Square_des_Arts_et_M%C3%A9tiers,_ca._1865.jpg, 1865.
- 17 *Children playing at the playground of the Square Emile Chauteemps*, Image by Author, 2019.
- 18 *Local pétanque game in the Square*, Image by Author, 2019.
- 19 *Individuals finding rest on open benches within the square*, Image by Author, 2019.
- 20 *Underground building immersion type*, Image by Author, 2019.
- 21 *Underground building lighting strategies*, Image by Author, 2019.
- 22 *Underground building entrance strategies*, Image by Author, 2019.
- 23 *Underground infrastructure in Paris, France*, Image by Author, 2019.
- 24 *Underground infrastructure of Square Emile Chauteemps*, Image by Author, 2019.
- 25 *The Salon Carré at the Musée du Louvre*, <https://www.louvre.fr/en/mediamages/giuseppe-castiglione-salon-carre-musee-du-louvre-musee-du-louvre-rf-3734>, 1861.
- 26 *Drawing School of the National Conservatory of Arts and Crafts*, retrieved from <https://www.arts-et-metiers.net/musee/une-pedagogie-par-lobjet>, 19th century.
- 27 *Spring-Summer 2018 Haute Couture show - Savoir-Faire : Songe Dress*, retrieved from <https://www.youtube.com/watch?v=VnP8RiUK2Ug>, 2018.
- 28 *The pleats of Atelier Lognon*, retrieved from <https://fashionunited.uk/news/fashion/haute-couture-and-know-how-ii-the-pleats-of-atelier-lognon/2018011227626>, 2018.
- 29 *Dior Haute Couture Spring Summer*, retrieved from <https://daydreamingwoman.wordpress.com/tag/dior-haute-couture-spring-summer-2014/>, 2014.

- 30** Lemarié, retrieved from <https://curatedition.com/fashion/chanel-and-its-house-of-metiers-dart-disciplines/>, 2018.
- 31** Savoir-faire: Charlize Theron's dress at La Colle Noire, retrieved from <https://www.pinterest.ca/pin/336503403398532520/>, 2016.
- 32** Musée des Métiers de la Haute Couture exhibition directional guide, Image by Author, 2019.
- 33** Sketching exercise of design process, Image by Author, 2019.
- 34** Draping the muslin toile, Image by Author, 2019.
- 35** Replacing prototype pattern pieces, Image by Author, 2019.
- 36** Fitting the garment pieces together, Image by Author, 2019.
- 37** Mapping the rib casing, Image by Author, 2019.
- 38** Detail image of pleated cape, Image by Author, 2019.
- 39** Final bodice of garment, Image by Author, 2019.
- 40** Uniform single box pleat, Image by Author, 2019.
- 41** Expanding single box pleat used for retaining wall structure of the museum, Image by Author, 2019.
- 42** Adapted pleated structure created for central columns, Image by Author, 2019.
- 43** Skylight opening as inspired by the exploded fabric seam, cieling plan, Image by Author, 2019.
- 44** Skylight opening as inspired by the exploded fabric seam, axonometric, Image by Author, 2019.
- 45** Detailed mullion axonometric, as influenced by the fabric seam, Image by Author, 2019.
- 46** Ornamental detail of accent walls, as inspired by embroidery, Image by Author, 2019.
- 47** Exhibition lighting frames, as influenced by beaded embroidery, Image by Author, 2019.
- 48** Site program mapping, 1:1000m scale, Image by Author, 2019.
- 49** Axonometric drawing of the site and surrounding buildings, Image by Author, 2019.
- 50** Exploded sectional axonometric drawing of the museum, Image by Author, 2019.
- 51** Render of the park entrance to the sunken courtyard, Image by Author, 2019.
- 52** Axonometric drawing of the encasing museum structure, Image by Author, 2019.
- 53** -1 Floor plan, 1:750m, Image by Author, 2019.
- 54** -2 Floor plan, 1:750m, Image by Author, 2019.
- 55** -3 Floor plan, 1:750m, Image by Author, 2019.
- 56** -4 Floor plan, 1:750m, Image by Author, 2019.
- 57** Render of the main museum entrance and reflection pool, Image by Author, 2019.
- 58** Render of sunken courtyard, Image by Author, 2019.
- 59** Exploded structure axonometric drawing describing formal the central forms, Image by Author, 2019.
- 60** Render of the main atrium space, Image by Author, 2019.
- 61** Section A, 1:750m, Image by Author, 2019.
- 62** Section B, 1:750m, Image by Author, 2019.
- 63** Render of 'Atelier Flou' exhibition space, Image by Author, 2019.
- 64** Finished garment of the thesis project, Image by Author, 2019.

INTRODUCTION

The Introduction

“Every motion of the hand in every one of its works carries itself through the element of thinking, every bearing of the hand bears itself in that element. All the work of the hand is rooted in thinking.”

// Martin Heidegger

In a technological age, architecture finds itself at a fascinating juncture in time. In a culture defined by mass production and consumption, a struggle appears between necessity and frivolity. In a 2008 essay, John McMorrough argues that, the epistemological foundations of the discipline have been cyclically regurgitated, often addressing concern but never solutions towards the separation of theory and practice. This rumination of thought has generated an architecture uncertain of direction, becoming lost in homogenized commercialism [01] and sculptural spectatorship [02]. Indisputably, the built environment has moral obligations that extend far beyond purely functional space or superficial aesthetic performance. The preceding decade of aimless architecture has resulted in a new public realm devoid of identity and diversity.¹

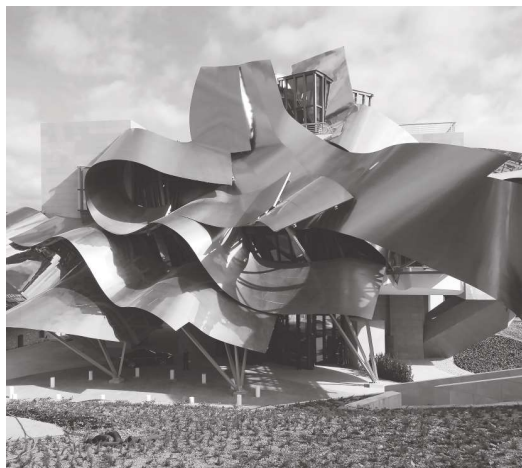
It is no coincidence that this separation between theory and practice is most evident in the generation of architects that operate at the greatest distance from craft production.² In, *The Thinking Hand*, Juhani Pallasmaa contends that the contemporary architectural design process is monopolized by

digital enhancements, producing an autotuned approach deprived of the human hand. The obsessive desire to innovate for the sake of innovation can never result in soulful architecture. Yet prevailing architectural pedagogies and practices prioritize traditional scientific and linguistic methods of thinking above the less acknowledged mode of manual crafts.³ Of course, one cannot dispute the significant advancements that have been a result of technology; however, the abuse of such strategies can impose insufferable damage to the discipline. These image-dense programs distance the mind from physical realities, ultimately impairing the nature of sensual understanding. Architecture has become a matter of two-dimensional production.

But the hand is an integral contributor to the evolution of material manifestations.⁴ There is an irony that the fundamental craft underpinnings that pre-exist the concept of architecture are now regarded as no more than secondary intelligence. Martin Heidegger addresses the theory of existential knowledge when analyzing the concept of thought, “every motion of the hand in every one of its works carries itself through the element of thinking, every bearing of the hand bears itself in that element. All the work of the hand is rooted in thinking.”⁵ The hand is capable of grasping a world beyond what the mind can comprehend, transforming image into materiality. The mind and the body are functionally interdependent. Mental constructs cannot exist externally, while the human form cannot function in the absence of neuroactivity. Human skill and behaviour are dependent on the synergy between both elements.⁶ The mind often finds comfort in rational thought, while the hand is further prone to spontaneity and subconscious desires. This dualism is the pinnacle of creative mediation – it is the balance between reason and poetics. If architecture has become a derivative of the mental framework,



| 01



| 02

01 // Commercial Box Store,
Michael Vosburg, 2018.
02 // Marques de Riscal Hotel,
Frank Gehry, 2006.



"I wanted to be a sculptor - for me, it is just the same to work with fabric or stone."

// Madame Grès

developing separation between thinking and making, then perhaps an appropriate, and slightly obvious, response is to seek a new theoretical context through the act of manual production.

While this approach presents an optimistic opportunity to investigate the physicality's of architecture, it perhaps seems too pertinent to achieve any novel revelations. After all, the craft of architecture has been a topic of exploration for several key theorists, and the probability of producing any unique responses outside of such existing discoveries is unlikely. Architectural understanding, however, has forever pivoted on interdisciplinary ideologies.⁷ Through the derived and adapted knowledge of related design industries,

architecture strengthens its understanding of human conditions and needs. This thesis will, therefore, seek resolution from an alternative creative profession that maintains a concrete connection to the mind-hand dexterity, presuming intriguing and innovative architectural discoveries.

Haute couture, an accredited sector within the fashion industry resembles several similarities to architecture. Considering clothing as artifacts that are more than a response to functional requirements, haute couture exercises the design and creation of custom-made objects within the context of a strict and controlled professional environment. The design of haute couture garments and accessories revolves around proportions of the human body, and often reflects the cultural and stylistic priorities of its time. Beyond these surface-level similarities, however, both architecture and haute couture operate at the nexus of high-quality design and craft. Madame Grès, a twentieth-century French couturier, further expressed sculptural and structural resemblances between fashion design and stonework when stating, "I wanted to be a sculptor - for me, it is just the same to work with fabric or stone."⁸ [03] However, despite the many parallels, fashion is often not recognized as socially valuable practice, especially in association with a heroic discipline such as architecture. Yet, due to the strict regulations enforced by La Federation de la Haute Couture et la Mode, haute couture has managed to maintain

distinct hand-crafted traditions.⁹ This existential knowledge familiar to both the designer and the artisans of the couture atelier is fundamental to the realizations of the discipline – and transferable to alternate creative mediums.

Through analogical insights, this thesis will translate parallel understandings of craft philosophies from the discipline of haute couture into an architectural dialogue.¹⁰ Synthesizing these similarities will attempt to create connections, as well as differences, to initiate a critical questioning of the contemporary approach to architecture.¹¹

The structure of this text will commence with fundamental interpretations of existing theoretical excerpts about craft. Comprehending philosophies regarding the hand as a thinking entity, craft as a cultural phenomenon, and architecture as an interdisciplinary art form will assist in creating firm connections to the underpinnings of haute couture. Recognizing craft as a means of material consciousness and moral awareness that, by definition, is imperative in the creation of meaningful architecture, will emphasize the necessity for this dialogue. Further explorations of the manual productions of haute couture and translations of pertaining similarities will produce stimulate a meaningful design process.

Concluding in the architectural manifestation of Le Musée des Métiers de la Haute Couture, this thesis

will publicize the craft productions of haute couture to the general public of Paris, exposing and curating the making of the artifact. Paris, France, the capital of the industry, will reflect considerably within the general research of the dissertation, gradually framing the context for the chosen site and typology of the building. The resulting museum project will draw comparisons from the haute couture discipline by means of two major approaches.

Commencing with the overall design process, a tactile exercise inspired by the techniques of haute couture will direct the manifestation of the building project. Such analogical operations between fashion and architecture will be explored concurrently through the materialization of a full-scaled garment and the design of the building. By working through the cyclical procedures of sketch concepts, model experimentations, and drawing developments, the design practices of the fashion community will translate into the architectural procedures. Additionally, in search of fresh perspectives, correlations between pleating and form, stitching and connections, and embroidery and superimposed ornamentation will be formulated. Addressing these design and fabrication strategies will offer inspirational influence on the aesthetic and structure of the concluding museum. The objective of these exercises is to offer a critical proposal for how we might strengthen the process of architectural design in the technological age.

PART ONE

The Theories of Craft: Material and Ethical Awarenesses of the Hand

“You can’t understand how wine is made simply by drinking lots of it”¹

// Richard Sennett

The concept and practice of ‘craft’ are present in all cultures, and in its broadest compass, reflects the human desire to manifest subjective aspirations through matter. The intrinsic desire to express internal aspirations into material manifestations is a universal sensation amongst every facet of human existence. Such a multidisciplinary term beholds a complexity that extends far beyond the vague definition of ‘skilful making.’² Preceding all recognized disciplines, the historical development of craft suggests a common embodied identity that is fundamentally engrained within our very framework. In, *The Psychology of Consciousness*, Robert Ornstein defines ‘craftsmanship’ as an occurrence that is further encompassing than mere tangible creation,

“We think of craftsmanship ordinarily as the ability to skilfully manipulate the tools and materials of a craft or trade, but true craftsmanship is much more than this. The really essential element in it is not manual skill and dexterity but something stored up in the mind of the worker. This something is partly the intimate knowledge of the character and uses

of the tools, materials and processes of craft which tradition has given the worker but beyond this and above this, it is the knowledge which enables him [her] to understand and overcome the constantly arising difficulties that grow out of variations, not only in tools and materials but in the conditions under which the work must be done.”³

This philosophy has been reaffirmed by several key theorists, including Heidegger, Sennett, and Pallasmaa. What becomes exceeding evident amongst such theoretical works, is that craft offers an existential connection between the mind and the world in which it exists. A reflection of such a premise becomes especially necessary in a zeitgeist that struggles with the discord between the body and the mind – existing as though they are two separate entities. With emerging technological advances, the void between us and reality becomes ever more apparent, specifically within the realm of architecture. What can the comprehension of craft offer to current architectural dialogues? How can the division between theory and practice be reconnected through craft production? Can craft philosophies of differing disciplines be translated to introduce new perspectives of design? Establishing concrete associations between craft and design will address the significance of the following investigations within this thesis.

Thinking Through the Hand

The division between mind and body is a prominent philosophy in western culture.⁴ This current estrangement is deeply embedded within the history of educational pedagogies and practices.⁵ Where traditional intellectual and scientific methods of knowledge are held at the utmost stature, arts and crafts fail to be appropriately recognized in the hierarchy of academics. As justified in a succession of lectures presented by Martin Heidegger, *What is Called Thinking?*, thought finds itself through various capacities,

Craft

\ˈkraɪt\

noun

1. skill in planning, making, or executing: DEXTERITY
2.
 - a. an occupation or trade requiring manual dexterity or artistic skill
 - b. crafts *plural*: articles made by craftspeople

verb

to make or produce with care, skill, or ingenuity

| 04

Craftsman

crafts·man | \ˈkraɪ(t)s-mən\

noun

1. a worker who practices a trade or handicraft
2. one who creates or performs with skill or dexterity especially in the manual arts

| 05

04 // The term 'Craft' as defined by the Merriam-Webster Dictionary.

05 // The term 'Craftsman' as defined by the Merriam-Webster Dictionary.

*"Perhaps thinking, too, is just something like building a cabinet. At any rate, it is a craft, a 'handicraft.' 'Craft' literally means the strength and skill in our hands. The hand is a peculiar thing. In the common view, the hand is part of our bodily organism. But the hand's essence can never be determined, or explained, by its being an organ which can grasp. Apes, too, have organs that can grasp, but they do not have hands. The hand is infinitely different from all grasping organs - paws, claws, or fangs - different by an abyss of essence. Only a being who can speak, that is, think, can have hands and can be handy in achieving works of handicraft."*⁶

With this statement, Heidegger assumes a parallel between intelligence and the human hand. As an anatomical singularity, grasping hands and opposing thumbs are exclusive to the human species. Such unique physical frameworks have permitted for our ancestors to explore, experiment, and problem solve through the act of tactility. This biological advantage has allowed the human race to evolve with an embodied understanding of the world in which we inhabit. The body is not a passive receptor; it contributes heavily to cognitive thinking through sensual modes. The common misconception still prevails that mental constructs are more worthy than physical. However, the mind and body are interdependent. The body cannot function without neurological activity, while the mind cannot fabricate concepts exclusive of experiences and memories.⁷ As suggested by Pallasmaa, "We remember through our bodies as much as through our nervous system and brain."⁸

This embodied knowledge is fundamental to both the craftsman and designer. All forms of craft must mature from a discourse between material practice and thought. Numerous artists have made similar assertions supporting these theories, including Finnish sculptor, Tapio Wirkkala, who often asserted having "Eyes at the fingertips," to explain the precision of the hand.⁹ The ability to fully comprehend physicality fosters the ability of judgment and reflection. This method of critical thinking presents a perpetual quest between problem-solving and problem finding.¹⁰ Such experimental pursuits are responsible for the advancements of society in which we recognize today.

The more articulate the craftsman becomes in their trade, the further the hand can improvise and explore. Richard Sennett proclaims that quality craftsmanship is founded on a high degree of skill. To master a skill requires an estimation of ten thousand hours of practice, acquiring familiarity through movements specific to each profession.¹¹ Fusing the coordination of the hand and mind results in subliminal actions capable of reaction and response. This occurrence is often referred to as muscle memory, where the mind and body become harmonious to the degree that is indifferentiable. As explained by Sennett,

"In learning a skill, we develop a complicated repertoire of such procedures. In the higher stages of skill, there is a constant interplay between tacit knowledge and self-conscious awareness, the

“All art forms - such as sculpture, painting, music, cinema and architecture - are specific modes of thinking. They represent ways of sensory and embodied thought characteristic to the particular artistic medium. These modes of thinking are images of the hand and the body, and they exemplify essential existential knowledge.”¹³

// Juhani Pallasmaa

“When we speak of doing something ‘instinctively,’ we are often referring to behavior we have so routinized that we don’t have to think about it. In learning a skill, we develop a complicated repertoire of such procedures. In the higher stages of skill, there is a constant interplay between tacit knowledge and self-conscious awareness... Craft quality emerges from this higher stage, in judgments made on tacit habits and suppositions.”¹⁴

// Richard Sennett

tacit knowledge serving as an anchor, the explicit awareness serving as critique and corrective. Craft quality emerges from this higher stage, in judgments made on tacit habits and suppositions.”¹²

This rhythmic expertise is often mistaken for mundanity and ease but requires exceedingly high dedication to achieve. Our modern values, rooted in temporality, does not often encourage such persistent commitment to one given thing. However, several theorists recognize that there is great validity in craft methodologies, expanding from informative knowledge of materials to ethical and moral awareness.

Material Consciousness

The procedure of all craft is dependent on material. As previously expressed, craft production requires mind-body coordination to perform an act of making. Within this process, the craftsman must become inherently aware of the qualities of the material at hand. The skin interprets texture, weight, density and thermal values of matter in a manner that cannot be achieved in a visual manner alone. George Sturt explains this phenomenon when writing, *The Wheelwright’s Shop*, “My own eyes know because my own hands have felt,” expressing a knowledge that can only be gained through tactile experimentation. He continues by stating, “but I cannot teach an outsider,” as his inability to communicate these material understandings through verbal articulations.¹⁵

Craft provides the opportunity to thoroughly research and specialize in the qualitative factors of matter. In these findings, the craftsman gains the ability to judge, analyze and innovate within the realm of design and creation. But modern practices lack this hands-on approach, depriving designers of the crucial understanding of how an object is made. Pallasmaa addresses this separation between designer and creator,

“Most designers - such as glass artists or furniture designers, not to mention architects - rarely make the objects they design themselves. Consequently, they need to understand the possibilities and limits of the materials and crafts and communicate their ideas and intentions to the specialist craftsman, whose hands become the designer’s surrogate hands in the execution of the work.”¹⁶

Machine is now the primary technique used in design processes, but the pixels in the computer screen can never relay materiality. Though it is possible to virtually capture three-dimensional form, it brings us no closer to recognizing the realities of what we are striving to achieve. Computer-aid design software has indisputably accelerated modern methods of design which have promoted the architectural profession. But the product of an exclusively technical approach is often a project that lacks groundings. This anomaly has imposed a generalization, a mass-produced world, that is extensively vacant of human touch. The machine



should not be mistaken as superior, for the axiological difference between it and the hand is the capacity for meaning. The mind-machine relationship often results in the rational; while the mind-hand dialogue embraces sensual experience. There is a phenomenological value that can be offered by the objects we create, and material is a central influence on this effect. But there are technical qualities that can be understood through experimentation as well. Structural limits and properties such as strength when in tension or compression can also be determined. Becoming proficient in any given material permits the designer to further innovate and advance its capabilities.

Ethical Awareness

Although craft is dependent on raw material, there are intangible values that are associated with such actions. Richard Sennett defines craftsmanship as a "basic human impulse, the desire to do a job well for its own sake."¹⁷ What can be concluded is that the act of craftsmanship is dependent on some form of internal compulsion, suggesting a psychological framework. This further probes the question, what does the process of making reveal about ourselves as an ethically cognizant species? If carefully observed, the behaviours and concerns of modern-day society often reflect the dominant method of creation. Where machine technology offers quick, mass-produced objects, we find ourselves craving immediacy, even at the sacrifice of quality.

Quality craft and skill cannot be built on indifference. Intense altruistic engagement with the intent to benefit another at one's own expense suggests kindness, empathy, and distinct consideration of others.¹⁸ The standard of excellence in all executions of making is translated amongst every craft profession. The innate aspiration to do better exemplifies care. This conflict between getting something done and getting it done right is often where many disciples face endangerment. Seizing to concern about the objects in which we design, manufacture, and utilize, establishes a soullessness to the world in which we live. But the craftsperson's obsession plays to the internal human desire for genuine innovation as a means to improve our present circumstances.

The achievement of quality requires skill. Skill can only be acquired through practice and continuous repetition.¹⁹ Such devotions that result in a high degree of skill require patience, and in a culture of intolerance, craft experiences a great obstacle. The conundrum of immediate gratification rarely results in genuine fulfillment. But craft poses a solution to this unresponsiveness. Based on specialized learning, the process of obtaining any skill requires several hours of training. This rhythmic method of knowledge accumulation is rooted in patience. Patience, a worthy personality trait, is proven to be a modifiable characteristic.²⁰ The ability to remain calm in the face of disappointment, stress, and uncertainty are necessary for all successful problem-solving professions. But a study published in the *Journal of Positive Psychology* further associates patience to more pro-social behaviours, including generosity and compassion.²¹

So why do these qualities matter? Referring to the Greek origin of ethics, *ethos*, was defined as a mode to navigate one's life in order to achieve genuine fulfillment.²² These individual values develop with time and experience, developing conscious thought and the ability to critically analyze oneself and their surroundings. As ethical beings, humans measure situations through the relativity of moral principles. Craft production exercises these fundamental thoughts, often resulting in personally and socially conscious objects.

The Culture of Craft: Propriety of the Public Domain

“The first cause of luxury lies in that dissatisfaction with our condition, that desire to increase our well-being, which is and must be present in all men. It is the cause of [wo]men’s passions, their virtues, and their vices. This desire must be founded on equality and community of property.”¹

// Denis Diderot

The act of craft is a phenomenon that extends amongst all cultures, dating back to primal states of human existence. Craft has ever since, acted as a catalyst for human development. This instilled desire to create is an anomaly from differing species, resulting in an incomparable physical imprint on this world. Several theories hypothesize on this unique singularity, with majority alluding to some form of instilled quality. Mythologies such as the opening of Pandora’s box and the eating of the forbidden fruit lend to some form of curiosity engrained within our very framework. Biological evolution corresponds to the act of making to natural selection and our ceaseless desire to improve for the sake of survival.² Neuroscience and psychology suggest a dissatisfaction gene that results in relentless innovation to fulfil our utopian desires.³ Regardless of the theory, it can be concluded that humans perceive both themselves and their surroundings as incomplete. The need for addition and adaptation can be recognized in all forms of craft, from clothing to shelter. And although craft is cultivated from our desire to improve our functional circumstances, it too evolved to appease

cultural and artistic expressions. When craft and creative representation are synthesized, cultural conventions become embedded within the artifact. As expressed by Indra Kagis McEwen, “the several arts are composed of two things – craftsmanship and the theory of it.”⁴ Craftmanship offers opportunities for qualitative research; however, it additionally provides theoretical contexts for consideration, including cultural, social, political, hierarchical, and economic values. The act of making draws on the curiosities of the world and allows us to further explore envisioned yearnings. In, *Metaphysics*, Aristotle states, “it is through wonder that men now begin and originally began to philosophize.”⁵ Craft objects are historical records of such wonder. They inspire an investigation of surrounding uncertainties and result in innovative manifestations.

This leads to question, what do the artifacts we create say about ourselves? Primarily, the practical needs of a society can be analyzed through its functional creations. Utensils, tools, and structures address the lifestyle and evolution of human existence. However, there are additional values and meanings that can be derived from an object. Material culture refers to tangible things that define a specific culture, which can be analyzed through a multitude of manners. In Ancient Greece, the identity of the civilization was represented through the things in which people made. Stories and mythologies were ornamentally painted onto ceramics. Similar techniques can be observed throughout architectural works of the time, including scenes carved within the metopes of columns.⁶ **[07, 08, 09]**. The craft of these artifacts alludes to the identity of the ancient society. It was an integral facet of the expression of the individuals who made them as well as the individuals they were made for. And just as we can abstract meaning from the artifact itself, we can understand a culture by



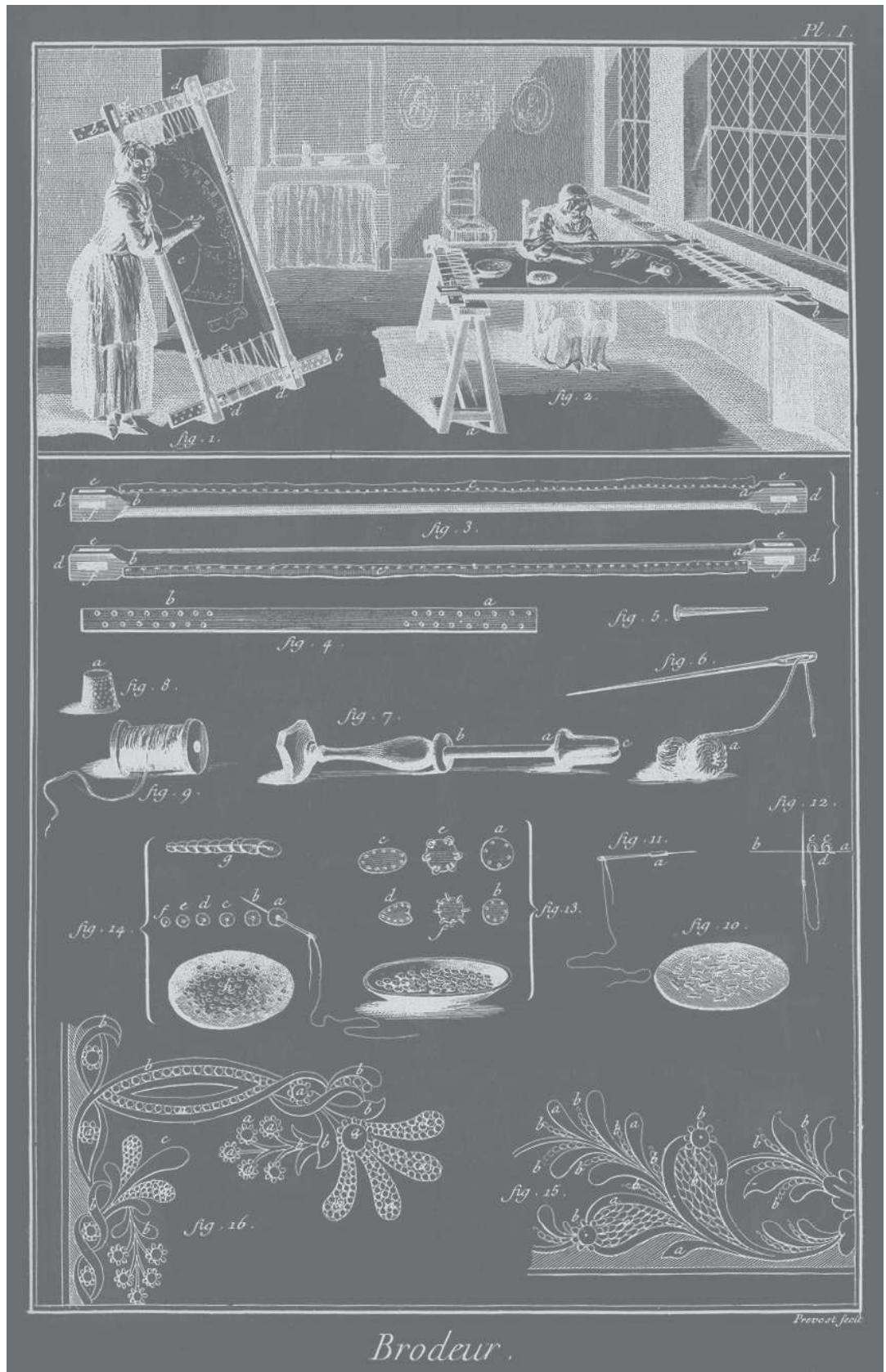
| 07



| 08



| 09



“Craft and community are indissoluble.”

// Indra Kagis McEwen

the way in which they fabricate these objects. In contemporary western culture, mass production and machine-dominated factory lines have become the convention of making. As technology replaces traditional handcrafts, corresponding cultural shifts transpire. Individuals fail to gain attachment to their possessions, as consumer heavy industries encourage disposal and repurchase of goods. Furthermore, it represents the growth of the human race, to a population scale that requires efficiency and multiplicity.

As McEwen states, a fundamental analysis of the growth of civilization can be formulated through the examination of the progression of craft methods. Craft has fostered the ability to colonize, establishing permanent, tangible monuments commencing with one structure, and expanding to entire metropolises. The architectural, political, and spiritual artifacts that are recognized today are a result of the long-evolving methods dating to the most ancient civilizations. In early Greece, it was the knowledge of craft that brought settlements out of the inclement, medieval state into a newly formed civilized world. Those who fabricated this new world were recognized as *demioergos* [craftsman], a compound word derived from the term *demios*, meaning public, and *ergon*, meaning work.⁷ In essence, the role of the *demioergos* was to create for the sake of the public. The things that were made belonged to the people and the community. In Socrates' Ancestor, McEwen states that “the archaic world was a world

that appeared through the things people made. The polis and the well-built temples that made it appear shared a common identity. Craft and community were indissoluble.”⁸ What becomes clear is that all cultural and civil conventions hinged upon craft and the making of things, which are indeed perpetuated into the contemporary western world.⁹ However, as craft evolved through the Middle Ages, hierarchical values were placed on such skills. The expertise of craft became a means of economic wealth, and craftsmen began to privatize their acquired skills as a method of placing exclusivity and monopoly on their goods. Craft became privileged knowledge, succeeded through generations. The guilds became a manner in which the crafts could be controlled through the elite and the monarchy.¹⁰ Craft was no longer an act that was produced for or belonged to the public, but rather divided by class structures. The making of artifacts became a political domain that was no longer accessible to the collective community.

Craft and French Enlightenment

The French Enlightenment, a revolutionary movement of seventeenth and eighteenth century France, was a catalyst for social, political, and technological transformation. The movement was a reaction to the social unrest expressed by the public. The poor living conditions offered by the royal monarchy, the presiding government of France, resulted in a population riddled by poverty. Distribution of wealth was vastly uneven,

10 // Illustration plate on embroidery from Diderot's L'Encyclopédie.

establishing long-standing tensions between nobility and commoners. Ideologically, The Enlightenment promoted prosperity for all rather than the narrow interests of the elite. Arts and crafts became centrally interlaced within this period of political liberalization. The celebration of knowledge and development during The Enlightenment became a manner in which individuals could improve their current circumstances. However, freedom and accessibility to this information were limited.¹¹

L'Encyclopédie des Arts et des Métiers, a multi-volume encyclopedia published in the late eighteenth century, was a highly controversial and provocative publication of The Enlightenment. Written and illustrated by Denis Diderot and Jean le Rond d'Alembert, the encyclopedia documented trades of the arts and sciences as a means to publicize the know-how of the professions [10].¹² The content of the text was provided by the professions themselves through submitted drawings and formal meetings. Diderot wrote, "the goal of an Encyclopédie is to assemble all the knowledge scattered on the surface of the earth, to demonstrate the general system to the people who will come after us, so that the work of centuries past is not useless to the centuries which follow, that our descendants, by becoming more learned, may become more virtuous and happier, and that we do not die without having merited being part of the human race."¹³ The intent was for the Encyclopedia to reach all classes of society and to disseminate knowledge that was once privatized. It was Diderot's belief that this openly accessible information would enable the progression of French civilization, increasing the power of the nation through the equality and intellectual growth of its citizens.¹⁴ Although, there was considerable discussion that arose from the text. Articles regarding the arts and political authority ensued heavy critique that

resulted in extensive discussions. This polemical publication challenged traditional schools of thought, liberalizing social, political, and academic conventions.

It was through this text and revolution that the social representation of a craftsperson shifted. The once 'deified' creators of ancient civilizations were now submissively placed on the hierarchical scale of professions. The French term *Métier* defines an individual or occupation that works through the skilled actions of the hand. In a definition provided by Diderot [11], it is argued that the essentiality of these individuals and their pursuits demand a higher degree of respect and gratitude. "They all would be naked and without bread without the artisan whom they all despise."¹⁵ Perhaps it is the standard school of thought that generates this disdain towards the *métiers*; for even in modern western culture, the academics are held to a higher calibre. However, as previously discussed in this thesis, the hand performs an integral role in the development of knowledge and innovation, and in turn, of civilization. Additionally intriguing, the scope of professional disciplines can be defined as a *métier*. This broad term defines the work of bakers, surgeons, builders, sculptors, painters, and indeed, architects – all of which contribute tremendously to both the physical and philosophical collections of human existence.

MÉTIER

MÉTIER, s. m. (*Gram.*) this is the name one gives to those occupations which require the use of the hands & which are limited to a certain number of mechanical operations, all of which have the same goal, & which the worker repeats continuously. I do not know why this word is thought of in such bad terms; we owe to the *métiers* all objects necessary in life. Those who take the trouble to go into the workshops will find usefulness & good sense everywhere. In antiquity, those who invented *métiers* were deified; but later centuries have thrown into the mud those who perfected these pursuits. I leave it to those with a sense of justice to determine whether it is reason or prejudice that makes us think so little of people who are so essential. The poet, the philosopher, the orator, the minister, the soldier, the hero – they all would be naked & without bread without the artisan whom they all despise.

The Parallels Between Crafts: Haute Couture and Architecture

“Fashion is architecture: it is a matter of proportions.”

// Gabriel Chanel

The architectural profession itself arose from craft origins. In Ancient Greece, the term ‘architekton’ was used to describe a master craftsperson; an individual who was not only fluent in the arts, but the physical construction of things. “The master craftsmen [architektonas] in every profession are more estimable and know more and are wiser than the artisans [cheirotechnon – literally, hand-workers] because they know the reasons of the things which are done.”¹ In *The Thinking Hand*, Pallasmaa states that architecture requires this specific embodied mode of thought to offers an alternative understanding of the human place in the material world. Such a physical comprehension reinforces the connection between the mind, the body, and the spaces in which we inhabit. He continues by arguing that the outcome of architecture created in a deficit of this tactile knowledge will be, “repulsively Oat, sharp-edged, immaterial and unreal.”² As a means of attaining manual skill, several architects often practise leisure pursuits in interrelated art fields.³ Gio Ponti, Carlo Scarpa, Renzo Piano, and Ettore Sottsass are all recognized for their experimental ventures in craft-related disciplines, whether it be glass works, ceramics, metals, or all of the above.

The practice of design frequently involves engagement with a variety of associating disciplines. The processes and methodologies of all creators are often related to theoretical contexts, conceptual influences, and other cultural, social, economic, or

political values. The phenomenon of design does not occur within a vacuum, and the argument for interdisciplinary studies can strengthen outcomes of conception. As a means of design, craft maintains similar complexities, and although such practices are commonly treated as separate, several benefits can arise when practised concurrently.

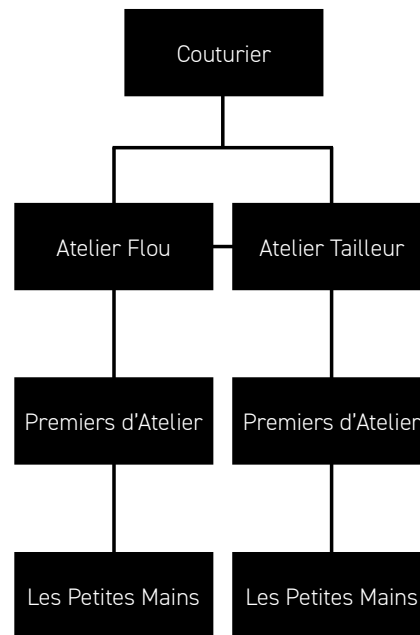
The Craft of Haute Couture

Haute couture, an accredited subdiscipline of fashion, is the construction of custom garments through solely hand-executed techniques. Translated as “high sewing,” fabrication time of a single garment can range from 200-1000 hours of manual work. Rather than standardized sizing, the sartorial creations of haute couture are fabricated to fit one specific individual to the most accuracy possible.⁴ Designed in collections, the outcomes of the discipline present textile as an expressive and experimental media. Pushing the boundaries of standard crafts of fashion, haute couture is devoted to the evolution of traditional skills and techniques of French garment making.

Due to the governance of the Fédération de la couture et la Mode, haute couture has maintained the quality of craftsmanship that it was founded in the nineteenth century. Establishing demanding standards, each designer must meet three focal requirements to trademark their brand as a house of couture. Such compulsories include design made-to-order for private clients, with one or more fittings; have a workshop (atelier) in Paris that employs a minimum of fifteen staff members full-time; every season present a collection of at least 50 original designs to the public, both day and evening garments, in January and July of each year (Paris Fashion Weeks). Accreditation is dependent on the achievement of such conditions.⁵ Prior to the establishment of haute couture, fashion

was supervised by the strict laws of the craft guilds, comprised of tailors and dressmakers.⁶ In 1858, Charles Frederick Worth transformed the fashion industry by altering the manner in which the public viewed the dressmaker.⁷ Straying from standard practice, Worth invented the spectacle of the designer, displaying seasonal collections of garments on live models. Customers could observe the attire in action and request selections, accordingly, receiving a custom fit garment that bore the label of the Worth name. Through this revelation, the couturier was born, branding fashion an artistic discipline.

This spectacle is what haute couture is radically recognized for; however, behind the exuberant performance of the fashion shows are hundreds of devoted hands and thousands of dedicated hours. Above all publicity methods, haute couture at its utmost foundation, is a craft discipline. The production process, although thoroughly cohesive, can be divided into two categories of fabrication: the couture house and the artisans. The house of couture is established within the fashion brand itself, often occupying the upper levels of the building, above the boutique. Comprised of the designer and its two associated workshops, atelier flou (draping studio) and atelier tailleur (pattern-based studio), the house of couture operates as a well-integrated hive. Organized by hierarchy of skill, the craft individuals are classified as premiers mains (atelier heads), seconds mains (atelier managers), and les petite mains (seamstresses of various levels) [12]. This collection of highly skilled craftspeople develops volumes, proportions, and fits, commencing with muslin prototypes and concluding in the finalized garments.⁸ The artisans encompass the vast assortment of individuals that supply the house of couture with specialized crafts. These ateliers work independently from the couture



house and concentrate on singularly specific skills, including pleating, embroidery, artificial flowers, feathers, hats, gold and silver, textiles, and shoes.⁹ The combined process involves numerous phases and interactions to result in an abundance of detailed handiwork. This impeccable craftsmanship is the trademark of haute couture.

Parallels between Architecture and Haute Couture

Despite the many complexities of the profession, haute couture is often not recognized as a socially valuable practice, especially in association with a heroic discipline such as architecture; however, several corresponding relations justify a comparison between the two. Both industries have evolved out of



the necessity of a contingent requirement: sheltering the body. And although each irrespectively operate at vastly differing scales, both revolve around human proportional values. In, *The Unfashionable Human Body*, Bernard Rudofsky discusses the earliest utilitarian creations of the human hand, describing the coverings of Adam and Eve as the first test of self-reliance on sartorial objects.¹⁰ From the most initial stages of human evolution, the desire to improve existing conditions have been ingrained within the very framework of our species. Both architecture and fashion were fostered by such requirements.

While both disciplines are rooted in functionality, each has evolved to be communicative of cultural and social expressions through aesthetic and material values. Neither discipline remains purely logical in methods of creation, both catering to the utopian desires of future generations. Such aspirations manifest themselves through stylistic impositions, to which vary depending on the vernaculars of respective customs of a given culture. These two modes of design encourage explorations of formal, decorative, and material characteristics.

At the core of both architecture and haute couture, is the fundamental understanding of craft phenomena. The profound knowledge of materials and construction techniques is what constitutes the architect and couturier as master craftsmen. The processes of design between each discipline often employ similar methodologies, including modes of sketching, modelling, and conceptual theorizing. This thesis will explore the collaboration between these two domains by investigating the dynamic relations through formal craft translations. The temporality and manageable scale of fashion will offer increased opportunity to experiment tangibly in comparison to architecture, achieving increased detail with minimal waste. This thesis will seek to break the boundary between the two professions in an attempt to synthesize the final building project, le Musée des Métiers de la Haute Couture.

PART TWO

The Project Site: Paris, the Third, and the Square

The overall progression of Paris post-French Revolution was substantial, forever altering the urban lifestyle in a global context. The Haussmann redevelopments, in particular, changed the manner in which the public interacted at street level. Underground infrastructure, including sewer lines, transportation systems, and water networks transformed the hygienic state of the streetscape.¹ Widened roads, newly constructed apartments and storefronts, and the addition of green spaces created a city with opportunity for urban wander. The term 'flâneur/flâneuse,' originated by Charles Baudelaire, emerged to describe an inspired observer of the city.² Citizens began to occupy the streets in times of leisure, creating a scene for gazing and spectatorship. The haute couture industry emerged in support of such activities, presenting the prosperity and poise of the new affluent class structure. In Baudelaire's poem, *À une passante*, from, *Fleurs du Mal*, he describes a passing female from the perspective of a male onlooker in the boulevards of Paris. He illustrates the swaying of her black gown as she strolls in a 'noble and swift' manner with 'sweetness that charms.'^{3,4} The poem describes the phenomenon of the modern female Parisian, graceful and styled, to which was enabled by the introduction customized fashion. Women's clothing became a mode of social, personal, and economic expression and the couturier was the artistic creator of these figures.

Established by Charles Fredrick Worth within the contexts of Paris, the disciple of haute couture evolved out of this French tradition and culture.⁵ Additional couture houses began to arise within the city, and supporting artisans grew out of the need for specialized crafts. In 1868, the *Chambre Syndicale de la Haute Couture* was founded as a means to regulate and assure quality craftsmanship within the newly developed profession.⁶ Today, it is a

stipulated requirement that each accredited couture house must maintain an operating atelier with a minimum of fifteen workers within central Paris.⁷ These collective efforts have classified Paris as the capital of fashion, fostering an industry entrenched in French craft skills and knowledge.

During the site selection process of the final thesis project, it became imperative for the Musée des Métiers de la Haute Couture to be located within the public realm of Paris. The objective of exposing the untold narratives and crafts behind the known spectacle of haute couture would be found most effective in a city with existing interest and investment in such subject matter. As a method of selecting an appropriate site, thorough research was devoted to mapping locations of haute couture activities, exhibiting the fundamental settings of the profession in Paris [14]. The first wave of couture ateliers, including the house of Worth and Bobergh, established themselves within the *Deuxième arrondissement* in the mid-nineteenth century. Further progressions occurred in the early stages of the following century, with designers such as Gabriel Chanel and Elsa Schiaparelli, expanding south within the adjacent *Premier district*. Several artisans established ateliers within the boundaries of these combined neighbourhoods to foster relationships with emerging designers. Such artisans have since relocated to communal warehouse studios owned by Chanel on the borders of the city while maintaining showrooms in more centralized sites. The third rise of expansion occurred after the recession of the Second World War, with Christian Dior opening his first atelier at 30 Avenue Montaigne. The 'New Look' of Dior became a catalyst for further development within the industry and resulted in major fashion houses to root themselves within the *Troisième* and *Huitième arrondissements*. Today, Avenue Montaigne remains the primary street of extravagant fashion,



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1 : 90,000 m



Major Sites of Haute Couture Activities within City Limits of Paris, France

1. Charles Frederick Worth - First Atelier
2. Fédération de la Haute Couture et de la Mode
3. Coco Chanel - First Atelier
4. Elsa Schiaparelli - First Atelier
5. Christian Dior - First Atelier
6. Musée de la Mode de la Ville de Paris
7. Yves Saint Laurent - Atelier
8. Musée de Yves Saint Laurent
9. Hubert de Givenchy - Atelier
10. Giorgio Armani - Atelier
11. Balmain - Atelier
12. Elie Saab - Atelier
13. Chloé - Atelier
14. Musée de la Mode et du Textile
15. Jean Paul Gaultier - Atelier
16. Musée de Arts et Métiers
17. Chanel Artisan Ateliers (Under Construction)
18. Chanel Artisan Ateliers

14 // Major Sites of Haute Couture Activities within City Limits of Paris, France, in reference to the project site.

À une passante

*La rue assourdissante autour de moi hurlait.
Longue, mince, en grand deuil, douleur majestueuse,
Une femme passa, d'une main fastueuse
Soulevant, balançant le feston et l'ourlet;
Agile et noble, avec sa jambe de statue.
Moi, je buvais, crispé comme un extravagant,
Dans son oeil, ciel livide où germe l'ouragan,
La douceur qui fascine et le plaisir qui tue.
Un éclair... puis la nuit! — Fugitive beauté
Dont le regard m'a fait soudainement renaître,
Ne te verrai-je plus que dans l'éternité?
Ailleurs, bien loin d'ici! trop tard! jamais peut-être!
Car j'ignore où tu fuis, tu ne sais où je vais,
Ô toi que j'eusse aimée, ô toi qui le savais!*

// Charles Baudelaire

A Passer-by

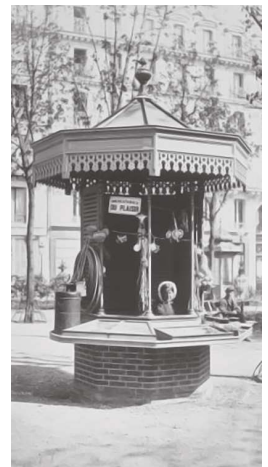
*The deafening street roared on. Full, slim, and grand
In mourning and majestic grief, passed down
A woman, lifting with a stately hand
And swaying the black borders of her gown;
Noble and swift, her leg with statues matching;
I drank, convulsed, out of her pensive eye,
A livid sky where hurricanes were hatching,
Sweetness that charms, and joy that makes one die.
A lighting-flash — then darkness! Fleeting chance
Whose look was my rebirth — a single glance!
Through endless time shall I not meet with you?
Far off! too late! or never! — I not knowing
Who you may be, nor you where I am going —
You, whom I might have loved, who know it too!*

// Roy Campbell [Translation]

15 |



16 |



as luxury brands monopolize the storefronts and apartments levels above.

The Third Arrondissement

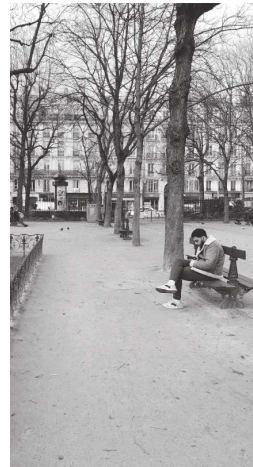
Demographics majorly influenced location selection. It was imperative that the elected area shared a preexisting interest in haute couture as well as craft production. The third arrondissement, located centrally for tourist accessibility, has historically acted as a setting for the development of the discipline. Several couturiers, including Jean Paul Gaultier, still maintain workshops within the limits of this district. In addition, the top left quadrant of the third, referred to as Quartier des Arts et Métiers, offers a unique history in support of craft individuals, with both the conservation and museum of arts and crafts positioned here.

Recognized today as Haut Marais, the neighbourhood has become home to several skilled creators, ranging from artisanal bakeries, butcheries, and fromageries, to old sewing shops, and made-to-measure clothing boutiques. This bespoke region of Paris has become a place of

attraction for a community of public creators. The inclusive dynamics of the public sphere is what made the third arrondissement a compelling site for the proposed museum project.

The Square

Designed in correspondence with the Haussmann redevelopments in 1860, the Square des Arts et Métiers was proposed in adjacency to the Conservatoire National des Arts et Métiers. The square's layout follows the traditional French garden style represented by André Le Nôtre [15].⁸ A stone balustrade outlines and contains the stepping foliage of the green space, in addition to several historical monuments. Two bronze sculptures, designed by Jean-Antoine Gabriel Davioud, are centred within two oval fountains – the prominent features of the site.⁹ Aligned in between these basins, a Jura granite column indicates the centre point of the square, monumentalizing the victories of Napoleon III. Through the duration of the nineteenth century, the square functioned as a public agora, offering space for social interaction. Several market stalls lined the centre of the park, creating the opportunity for



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local craftspeople to advertise and retail their works **[16]**.¹⁰ The park became an integral fragment of the community.

Today, the park operates as a vibrant public space for rest, contemplation, and action. Five entrance points puncture the limestone balustrade; one on the North, South, and West edges, and two on the East. Metal gates intersect each entrance, enforcing the park hours of 8:00 am to 7:30 pm. At mid-day, the playground situated in the north-east corner fills with children on recess break from the school up the street **[17]**. The opposing north corner hosts two sand pits, to which local pétanque players congregate for communal tournaments **[18]**. The centre and south grounds are lined with Gabriel Davioud's traditional forest green cast iron benches. At every hour of the day, public members find rest in these lightly shadowed seats to break for an espresso, read a book, or reflect upon their day **[19]**. Several horse chestnut trees fill the park in a staggered manner, adding a moment of greenery to the traditional Haussmann surroundings. Integrated within the west balustrade is an entry to the third

and fourth metro lines at the stop of Réaumur – Sébastopol.

This surplus of public engagement is the underlying integrity of the site itself. Rather than impose on the livelihood of the square, or compete with its historic surroundings, the suggested building project will propose to reside below such contexts humbly. Amalgamating with the intensive infrastructural networks of underground Paris, the Musée des Métiers de la Haute Couture will become an iceberg of hidden knowledge, slightly breaking the surface of the public realm.

15 // View of the Square des Arts et Métiers, 1878.

16 // Market kiosk within the Square des Arts et Métiers.

17 // Children playing at the playground of the Square Emile Chautemps.

18 // Local pétanque game in the Square.

19 // Individuals finding rest on open benches within the square.

The Underground: Architecture and Subterranean Paris

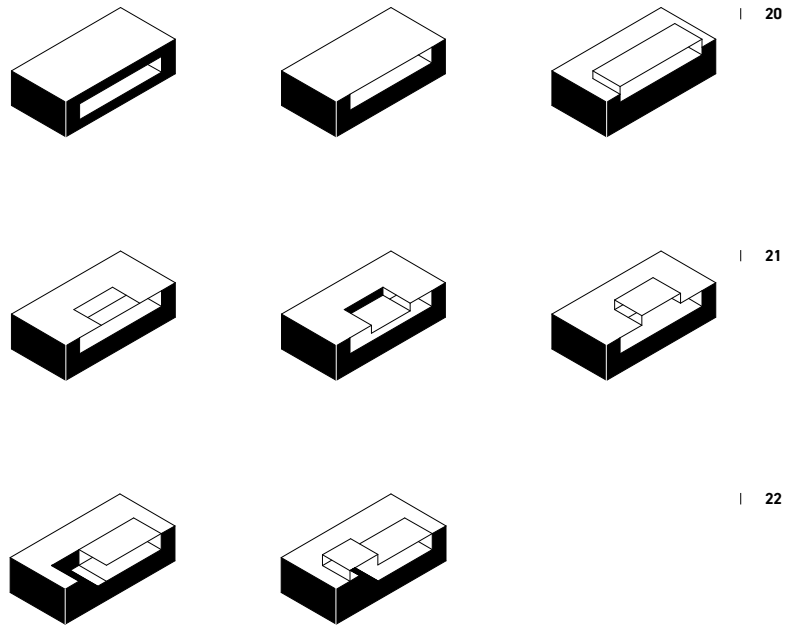
Underground space is a resource of great potential. Historically, the retreat below the earth's surface was often a vernacular response to various climactic, defensive, and resource-related resolutions to regional environments.¹ In contemporary practices, the motive for which this strategy is employed varies greatly. The treatment of underground architecture often expresses the prevailing conditions of urban contexts. In a metropolis such as Paris, above-ground limitations occur due to the existing density of the city. Additional constraints appear when consideration is given to the historical precedent of such prevailing structures. Underground expansion provides opportunities for development in highly condensed areas while respecting the existing conditions, contributing to the overall growth and vitality of public spaces. The major reorganization of the Haussmann Paris era resulted in, "a strong correlation between the logic of the urban fabric above (the network of roadways) and the one below (sewers and subway)."² Such corresponding relationships rationalize the proposition of building below. Building typology additionally justifies subsurface construction, as several spatial programs can benefit from underground retreat. Theatres, auditoriums, galleries and museums, in addition to other specialized applications prosper from the absence of natural light and the addition of acoustical barriers provided by submerged structures.³

Opposing the conventional raised methods of architecture, the proposed museum will seek to retreat underground, joining the vast public infrastructure that exists below the surface of Paris. With this strategy, the construction of the museum will preserve the vibrant, well used public square realized on the ground plane, while simultaneously avoiding competition with the adjacent historic

structures. The museum will humbly submerge itself within the subterranean. As one descends through the building, the untold narratives of the métiers will reveal themselves. Like an iceberg, the structure of the museum will be poetically representational of the hidden domains below the "surface-level" world of fashion.

With the unconventionality of this strategy comes additional complexities that require consideration. The quality of a public sphere is dependent on several factors including lighting, accessibility, and spatiality. The limitations occur when considering these qualities in underground scenarios. The non-existence of natural light and the accessibility difficulties of multi-levelled buildings requires reassessments of traditional design methods. The primary objective of the following case studies is to develop a space framework which establishes successful solutions to the design of underground architecture. Commencing with parti taxonomies, an analysis of subgrade design techniques can begin to be conducted.

This simple taxonomy suggests the diversity of physical options available in earth-covered construction. Underground architecture can be categorized in two primary approaches of construction based on site topography. Berming, a technique in which the building is cut within a high-elevated landscape – often hills, or mountain range – classifies one of these two methods. Subgrade structures, the method concern of this thesis, places the building in relation to a flat grade. Subgrade buildings utilize several methods that significantly alter the overall form and practicalities of a project. The depth of which a building is immersed can differ between full, levelled, or partial submergence [20]⁴. These qualities may be affected depending on lighting strategies, with inverted,



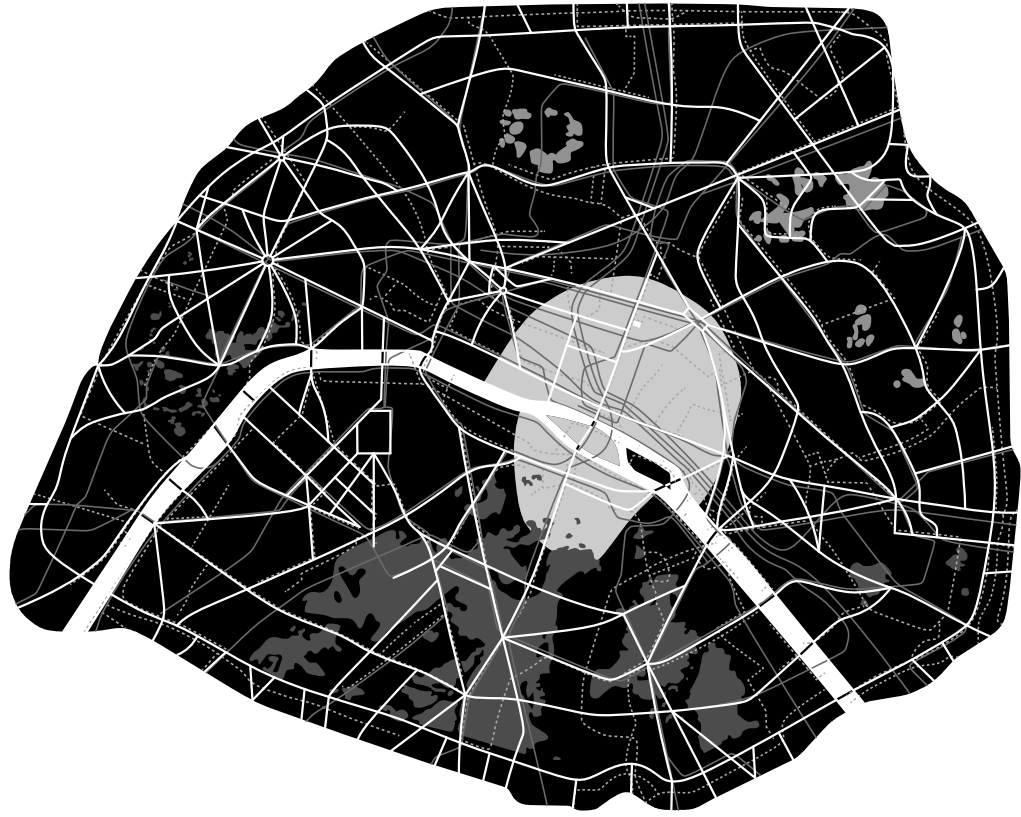
levelled, and projected forms directly affecting structural design considerations [21]⁵. The Louvre's 1989 addition, designed by I.M. Pei, utilizes extruding glass pyramids as a means of entrance and as well as natural lighting to underground wings.⁶ In contrast, Tadao Ando's Chichu Art Museum, provides lighting through sunken entrances.⁷ Atriums and sunken courtyards are frequent elements integrated into subgrade architecture [22]⁸. These design features provide opportunities for natural lighting as well as a relation to the above-grade surroundings. The manner of entry often reflects an above-ground structure, signifying entrance points, or a slow descent through either interior or exterior courtyard spaces [22].

Below the Site

To allow the consideration of existing underground infrastructure within the architecture of the final museum project, an intensive research process was conducted to map the primary urban networks of subterranean Paris. As previously mentioned, the urban planning of the Haussmann phase coordinated the above and below grids; as such,

the metro and sewer lines follow in parallel to the overhead road networks [24]. In reference to the site, a sew line runs along Rue Salomon de Caus, to which does not directly affect the site. The fourth and third metro line run parallel to Boulevard de Sébastopol, with the stop of Réaumur – Sébastopol intersecting the site directly. Attempts will be made to connect this public mode of transportation the proposed building project. There are no abandoned quarry sites below the square, however, possible roman ruins are a possibility, as it lands within the geographical region of ancient city of Lutetia. As a result, four meters of ground surface will be preserved to conserve existing archeological information.

20 // Underground building immersion type: full, levelled, and, partial submergence.
21 // Underground building lighting strategies: levelled, inverted, and projected.
22 // Underground building entrance strategies: sunken, raised.



1 : 90,000 m ▲

Index

- Sewer Network
- Metro Lines
- Roman Ruins - Lutetia
- Plaster Quarries
- Limestone Quarries / Catacombs



The Museum: a Typology of France

"The 'museum' was to be used to support the Republic by offering an opportunity to all citizens to share in what would previously have become the private possessions of the king. The 'museum' is a crucial point in this articulation. It enables the triumph of 'liberty over tyranny' and 'philosophy over superstition'."¹

The museum is a complex and diverse typology; far too grand for the likes of this thesis – however, a brief understanding of the intentions and developments of such institutions will aid in the justification of the selected program and influence the foundations of the final building project, Le Musée des Métiers de la Haute Couture. The museum as a public institution roots itself within the social, cultural, political, economic, and educational values of the place in which it situates itself,² and with the extended outreach provided by technological advancements, such establishments gain the ability to connect at a global level. In 1995, the Canadian Museums Association defined the term 'museum' as,

"A non-profit, permanent establishment, exempt from federal and provincial income taxes, open to the public at regular hours and administered in the public interest for the purpose of collecting and preserving, studying, interpreting, assembling and exhibiting to the public for its instruction and enjoyment, objects and specimens of cultural value, including artistic, scientific (whether animate or

inanimate) historical and technological material."³

At its core, and in its most generic explanation, a museum can be understood as an organized space that encapsulates artifacts of a categorized subject in service of public engagement, education, and participation. Similar to the act of craft, the museum is a phenomenon that belongs to the people. Developed in parallel to the advent of democratic states, these institutions express the spirit of enlightenment, recognizing that the government is accountable for the welfare of its citizens.⁴ The French Revolution marks this abrupt discontinuity of the monarch rule and its associated hierarchal system, replacing it with the liberation of a government directed by the people.⁵ "The 'museum' was created as one of the instruments that exposed both the decadence and tyranny of the old forms of control, the ancient regime, and the democracy and public utility of the new, The Republic."⁶ The once-private and exclusive personal collections of the royal, the church, and the aristocrats became communal property, making the arts accessible to all.⁷ Assemblies of artifacts were accumulated, reorganized, and dispersed, establishing the necessity for a new type of architectural space to openly exhibit such works. The Louvre was one of the first manifestations of this program, opening the palace of the old regime to develop a large gallery to which could display comprehensive collections in curated categorization.⁸ Spaces were allocated for sculpture display, others for artwork. Paintings were provided with uniform framing and concurring description plates [25]. This newly introduced program generated a complex setting that enabled the population to informally self-learn historical, cultural, and scientific subject matter. The museum became an apparatus for self-directed knowledge, providing equal opportunity for the population to learn about the contexts of the past,



25

providing the prospect for a further developed future.⁹ This typology became the standard for museum programming, being replicated throughout Europe within the following century,¹⁰ and later internationally, as landmark symbols of the affluence and culture of a nation.¹¹

Within the past few decades, museum program has experienced an extreme reorganization. Falk and Dierking, researchers of the museum experience state that, "whereas as recently as a generation ago most museums would have listed 'education' as a distant third on their list of institutional priorities, behind collections and research, these same museums would now be inclined to state that they are, first and foremost, centers for public learning – or at the very least, equally concerned about education, research, and collections."¹² Rather than the traditional priorities of cultural and object preservation, today's program emphasizes the visitor experience. The role of the museum in the twenty-first century is to assist in providing further knowledge of the subject matter of the visitors existing curiosities.¹³ The significance of visitor

engagement and participation has challenged the original museum typology, constituting a change in curatorial techniques and broadening the role in which such institutions serve the community.¹⁴ The dynamic power of an interactive experience presents greatly effective modes of learning. As previously discussed in part one of this thesis, the mind accumulates information through various means of learning. The encounters of the hand and body offer fundamental knowledge of surrounding material. "To observe was to be content with seeing, and with seeing only a limited number of things in a very systematic way. There was a deliberate restriction and exclusion in the aspects of things that were to be perceived."¹⁵ Incorporating elements of tactility and participatory display build upon the passive curatorial methods of observation.

The Museum: a Program for the Métiers of Haute Couture

The second decade of the twenty-first century is radically different than the first, and exponentially so from the decade previous. The accelerated rate at which technology advances increases with each coming year, unremittingly shifting the manner in which societies live and connect. In, *The Museum Revisited*, Falk and Dierking state that, "every museum must strategize and create a museum that understands the shifting needs and values of the public it hopes to serve."¹ With social networks at hands grasp, visual material becomes abundant and immediate. Standalone objects become more and more familiar and the lack a fundamental discourse becomes obvious, creating the necessity for further explanation. In todays social and cultural climate, it is no longer enough to know what, but to know how.

The Musée des Arts et Métiers, located within the arts and crafts district of the third arrondissement of Paris, has aimed to answer these curiosities since 1794. Exhibiting the evolution of scientific knowledge and technical progress related to French culture, the museums ambitions brought a three-dimensional encyclopedia of skill and craft to the public. Pierre Piganoil, museum director in 1992 described the museum as,

"A museum of techniques, not content to make us admire objects, seeks to explain the genesis and operation, then to establish their links with the evolution of societies and even with their policies of monopoly, supremacy, or cooperation. It thus fulfills

*a set of missions that we will regroup under a single term: a cultural mission which accompanies its mission of conservation."*²

The museum brought fundamental knowledge to a public that was previously ill informed on such subject matter. It enlightened the traditions of French culture to the French community and ensured that the concept of craft once again belonged to the public.

The discipline of haute couture has remained in a strange state of limbo. As a luxury industry rooted in utopianized values, focus is often placed on the spectacle of the completed rather than the exploratory process leading up to such finales. This perhaps explains why the fashion industry has often been branded a 'surface level' profession – if individuals are not permitted to view the depths of the field, how can one be sure it exists? However, as previously exposed in part one of this thesis, haute couture is a craft rooted in deep French tradition with a vast collection of highly skilled contributing individuals. The suggested museum program of this thesis will therefore borrow inspiration from its neighbouring museum, Le Musée des Arts et Métiers, to illustrate the untold narratives of haute couture fashion.



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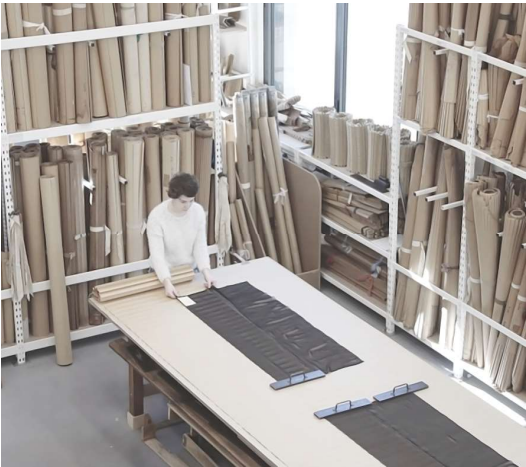
“We must illuminate ignorance that does not know, and poverty that does not have the means to know.”³

// Conservatory of Arts and Crafts



You will notice that on the sequin, it looks almost like it has been hammered.

27 |



28 |



29 |



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Musée des Métiers de la Haute Couture

The primary intention of the museum will be to question the conventional notion of craft, admiring the value of the process rather than the final artifact. The purpose is to reveal the work of the hand, mind, and heart, and the moments in which these creative expressions become synonymous.

The museum is catalogued in two sections. The 'Maison de Couture' houses provisional exhibitions, in contrast to the second segment which permanently displays the concrete traditions of the supply artisans.

While permanent exhibitions provide stability and establish craft knowledge to new coming visitors, the introduction of temporary exhibition spaces creates an interesting opportunity to maintain the continuous appeal of the public. Presenting new material in circulating and limited time frames encourage continued learning through additional visits and offer the most current information available. Framed as, 'The Making of a Collection,' the museum will display the craft processes that go into the manifestation of a specific haute couture fashion collection. The displayed collection will be replaced quarterly and will be selected from both past and present collections of varying couture houses.

All exhibits are organized to provide a full sensorial understanding of each craft practice. Fabric projection boxes provide spaces for video documentary displays, exhibiting the moving actions and know-how of the crafts themselves in addition to voiceover explanations. Documentary interviews allow designers to convey concepts and inspirations utilized in the creation of the displayed collection, communicating the profundities of the garments [27]. Current and historical tools and machinery are displayed with associated imagery and descriptors

to explain the use and evolution of each instrument [30]. Photography of the craftsmen within their natural environment of the ateliers provides genuine visuals of the craftwork [28]. Process materials such as sketches, patterns, toiles, pleating forms, embroidery patterns, and more demonstrate the foundations of the finished apparels [31]. Swatches and additional replicates of the garments are included to provide visitors with a tactile exploration of the collection [29]. Together, these curatorial techniques reveal the captivating untold narratives of haute couture to the general public, enlightening the exclusive and luxurious industry.

The temporality of the exhibits allows for collaboration with a multitude of designers, craftspeople, philosophers, and curators associated with the haute couture discipline. As a means of bringing the creator to the public realm, a 70-seat auditorium generates a space for discussion, offering further detail of the exhibited works. Special guest lectures to be weekly arranged and open to the public, complement the museum's curriculum objectives. Such events build upon community engagement and open the museum for further social integration.

Lastly, a public workshop space, located on the fourth floor, offers a space for making and learning through demonstrations. Organized classes provide an opportunity for the general public to learn and experience in the craft sphere of haute couture. Courses on Luneville embroidery, formed pleating, pattern making, hand stitching, garment draping, and more, build upon the educational aspirations of the museum through the physical act of fabrication. Such programs will perhaps inspire a new generation of individuals to become involved in the haute couture industry, or at the very least exercise their right to craft.

27 // Video still of short Dior documentary, Spring-Summer 2018 Haute Couture show - Savoir-Faire : Songe Dress.
28 // Image of the Lognon pleating atelier.
29 // Fabric sample from Dior's Haute Couture Spring Summer 2014 collection.
30 // Tools used in the craft of artificial floral creation.
31 // Muslin toile from Dior Atelier.

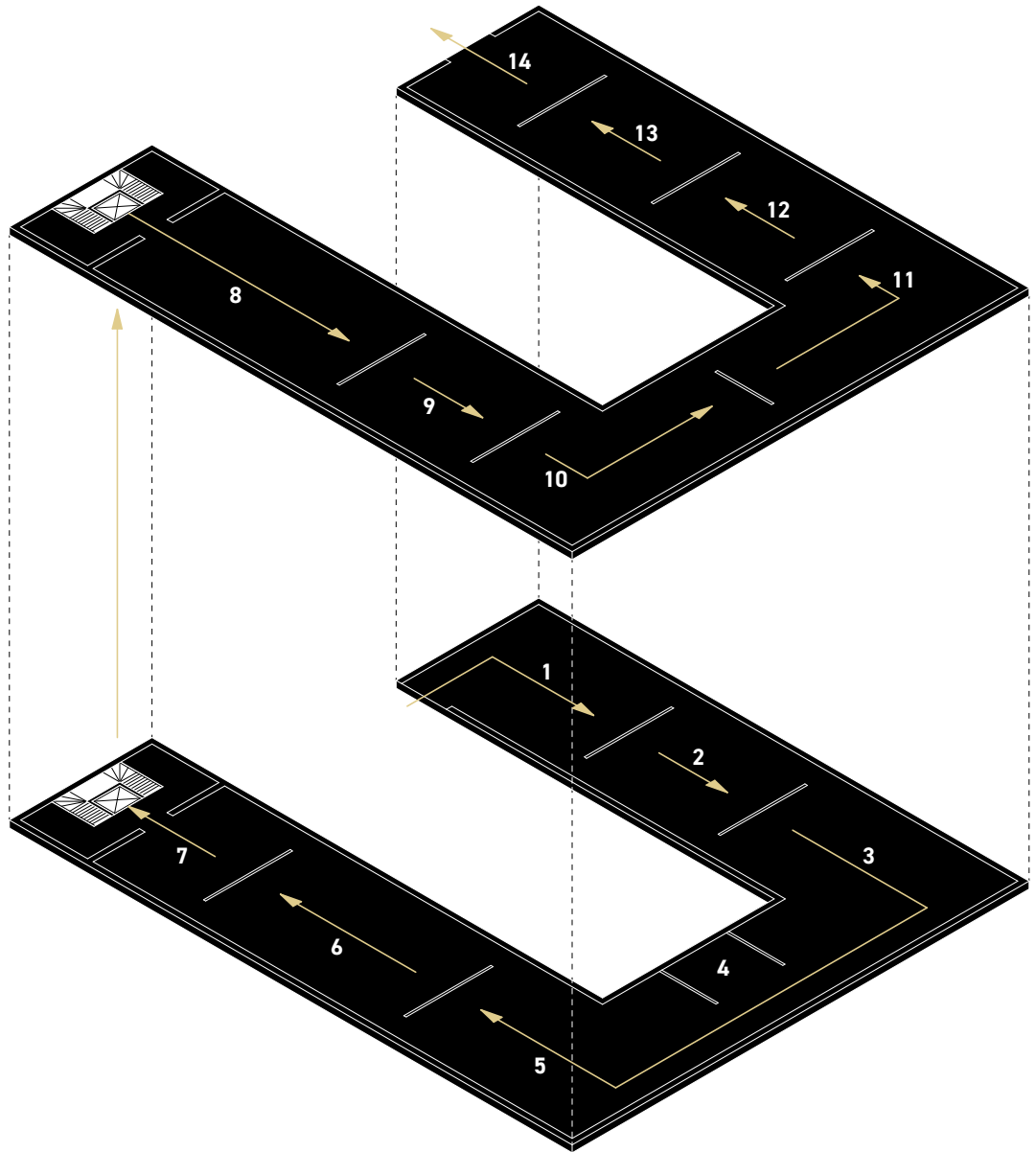


Table of Exhibition Spaces (in order of visitor experience)

No.	Exhibit Space	Level	Exhibition Type	Description
1	Histoire de la Haute Couture	-3	Permanent	The exhibition commences with a brief history of haute couture as a discipline, outlining the establishment of the profession as well as individuals, collections, traditions, and federations that have guided the industry to what is recognized today.
2	Maison de Couture	-3	Permanent	The following space will present the house of couture as a cohesive workshop of varying designers and craftspeople. Outlining the role of the couture house within the discipline of haute couture, the exhibit displays the dynamics of the designer, and the two recognized ateliers, draping and tailoring.
3	Le Couturier	-3	Temporary	Moving through part one of the temporary exhibitions, Le Couturier looks at the design work and development of the displayed fashion collection. Paper sketched, material, experiments, documentaries regarding concepts and themes are addressed within this space.
4	Break / Research Space	-3	Temporary	Reading materials and imagery relating to the displayed couture house and collection will create a temporary library devoted to break space within the exhibition path.
5	Atelier Flou	-3	Temporary	Part two of the temporary exhibition presents the works of Atelier Flou, the draping workshop of the couture house. Material experiments, muslin toilettes, and garment developments of the displayed fashion collection fill this space.
6	Atelier Tailleur	-3	Temporary	Part three, the final temporary exhibition, reveals the contributed works of the tailoring workshop of the displayed fashion collection. Garment patterns, blocks, sketches, and additional supporting material is presented within this space. This exhibit concludes the house of couture.
7	Les Artisans	-3	Permanent	The following exhibit space presents the tradition of the French artisans to which supply the house of couture with varying services.
8	Plissage	-2	Permanent	Pleating is the first artisan displayed within the exhibit. Demonstrating pleating formwork, patterns, tools and techniques, this space familiarizes the visitors with the traditions of the pleater.
9	Broderie	-2	Permanent	The following exhibition space presents the works of the artisanal embroiders, including traditional Luneville embroidery, hand stitching and beading.
10	Plumassiers et Fleuristes	-2	Permanent	The third artisan exhibit is dedicated to the crafts of artificial flowers and feathers. Techniques of heat-induced fabric forming and the delicacy of feather work are revealed.
11	Métaux	-2	Permanent	The following exhibit is devoted to the metal crafts of haute couture. The know-how and making of jewelry, buckles, buttons, and additional metal objects provided by the artisans are discovered.
12	Chapellerie	-2	Permanent	Ending with accessories, the exhibit devoted to the milliners of haute couture displays the precise lime wood forms, felts, and embellishment methods.
13	Les Chaussures	-2	Permanent	The final exhibit of the artisans uncovers the works of the shoemakers, displaying last making methods, designs, and leather forming.
14	La Collection	-2	Temporary	The exhibition spaces conclude with the display of the final garments from the displayed fashion collection.

PART THREE

The Design Process: Analogy and Translations

“Going deeper into my craft is so fascinating. I know nothing more exciting than that. You think that everything has stopped for good, is set in stone, and then suddenly you see depths, glints of light that you thought were out of reach, and that you come to understand and appreciate better as the experience grows richer.”¹

// Yves Saint Laurent

The term analogy has a long history in architecture and has been subject of designers and theoreticians as a way to understand and interpret work as well as a concept to design.² Andrea Ponsi further developed this concept through ‘analogous design’, describing a method of design in which new solutions are created through the abstraction and analysis of a relating image.³ The use of analogy when creating connections between disciplines can offer creative resolutions and new perspectives to design challenges. Considering the role of analogical thought, this thesis created an architectural model that was inspired by the craft paradigms of haute couture.

Borrowing artistic suggestions from the métiers

of French haute couture, the experimental gown behaved as an estimation of the final building project of Le Musée des Métiers de la Haute Couture. Aesthetic and structural concepts expressed within the discipline of couture garment production inspired a sartorial creation that looked to various methodologies of the industry and conveyed such styles through an experimental language. Influential qualities stemmed from traditional forms of French couture including the pleat, seam, and embroidery, while material translations were made through colour, opacity, and textural studies.

The garment was used as a provisional figure to develop the architecture of the final design project of the thesis. The design process followed the traditional order and techniques of the French haute couture profession, commencing with a series of analogical sketches as a method of understanding the language and practices of high fashion garments. Model toiles were constructed in low budget materials, including muslin and low-grade cotton, to test the foundations of conceived design thoughts. Temporary patterns and plans resulted from these strategies to further develop the direction of the project. The cyclical repetition of each method led to a finalized garment and thesis building design. The gown assisted in furthering design inquiries and experimentations and encouraged a greater investigation into material layering, ornamental integration, and technical detail development. The simultaneous and recurrent consideration of these qualities ensured unity within the final project.



| 33

34 |



35 |





| 36

| 37

Created in reaction to the Industrial Revolution, haute couture is founded on the intensely skillful hands of les petites mains – the devoted artisans of the industry. This know-how and dedication to hand-manifested artifacts are what allowed the discipline of haute couture to maintain its quality and authenticity as a creative profession. Le Musée des Métiers de la Haute Couture is a museum devoted to the display and education of these many professions, including tailoring, draping, pleating, embroidery, artificial flowers and feathers, metals, millinery, and shoes. The intention was for the architecture of the space to reflect the crafts in which it encases.

These fashion-architecture translations were produced through the following analogical creations. Pleating, used as a method of providing volume and structure to a single piece of fabric, is

translated into the load-bearing components of the building. The seam, the point in which two pieces of fabric are joined together, was translated into the connections of the building elements. Embroidery, a superimposed method of adornment, translated into the ornamental strategies of the museum. The garment provided a canvas to address and explore each fabrication strategy.

Following several experimental processes, the final gown was constructed at a 1:1 scale. As an essential part of the overall thesis project, the garment accompanies Le Musée des Métiers de la Haute Couture, as an allegory synthesizing the parallels of design processes between the disciplines of architecture and haute couture, and their respective crafts.

- 34 // Draping the muslin toile as a method of design development.
- 35 // Replacing prototype pattern pieces with final garment pieces.
- 36 // Fitting the garment pieces together on the dress form.
- 37 // Mapping the rib casing of the bodice.





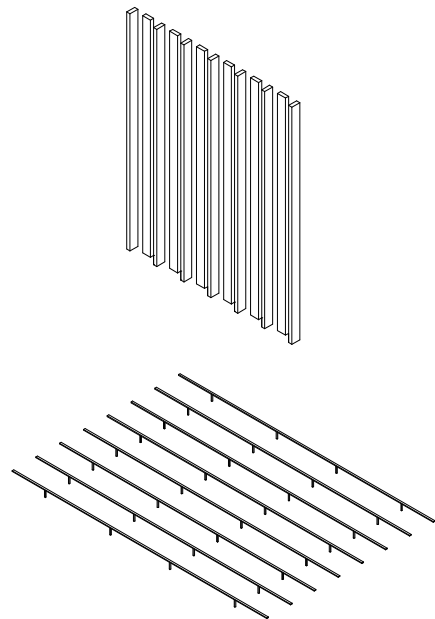
| 39

The Pleat, Seam, and Embroidery

46, 47 | The Embroidery // The Ornament

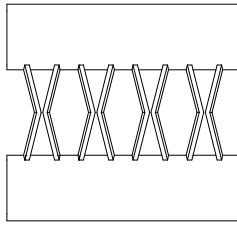
Embroidery, a method of adornment in haute couture, is superimposed decoration of thread and beading to the surface of a fabric. Considering embroidery as analogous to architectural ornamentation, such a process was explored within the museum's interior spaces, adorning accent walls as well as additional elements within the space.

Intended to appear as though a single strand of gold thread weaving through the building, polished brass accents decorate the structure through the use of railings, door handles, and signage. This method becomes much more condensed upon accent walls of the museum, seeming as though several strands of gold have been embroidered through the concrete structure [46]. Lastly, brass tracks have been imposed on the ceiling of the exhibition spaces to fix spotlights, in analogy to the delicate beadwork of haute couture [47]. Such methods of ornamentation are intended to maintain a subtlety of elegance, providing a decorative unity throughout the building.

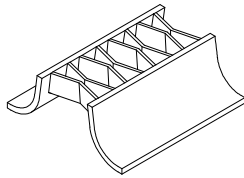


The Seam // The Connection

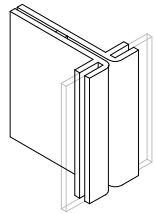
43, 44, 45



In the craft of haute couture, the seam is the point at where two pieces of material join together. The manner in which this is done varies in a multitude of stitch types. Translating the seam into the connections of the building, the structure began to develop through the formal languages of haute couture. The seam was introduced through two majorly varying scales.



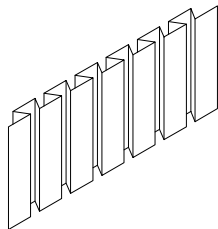
Considering the seam as analogous to architecture connections, a first action was translated into the center of the building, where the mirrored pleated columns meet together. Taking inspiration from an exploded basic running stitch, the atrium skylight appears as a seam being torn apart. Like a thread coming unwound, the beams join and support the columnnade, attaching themselves to the curved roof structure [43]. The curve, simulating the slight fillet of a fabric seam, provides the allusion of two pieces of fabric (the roof structures) being held together by the running stitch (the beams) [44].



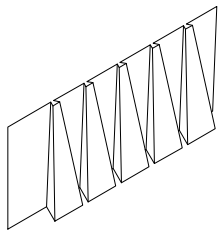
At a more detailed level, the mullions illustrate, in a similar translation, two pieces of fabric connecting together. Two metal mullions butt against each other and fillet outwards to respectively hold their glass pieces. The point in which the mullions connect alludes to the seam allowance, as though one can see the underside of a garment [45].

The Pleat // The Form

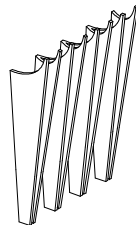
40, 41, 42



The pleat, an artistry of the fashion disciple, is the process of forming a single planar piece of fabric to provide volume and rigidity to a garment. When translated into architecture, this same method may be used to address the structural and spatial features of a building. There are two methods of pleating within fashion, the first is through simple folding and securing, the second being molding through formwork.



Reasoning by analogy, the method of pleating was translated through the structural forms of the museum. The two primary load bearing inner components include the retaining walls of the subterranean structure and the central columns, which provide support to the interior construction.



Inspired by the box pleat, the retaining wall was folded to create additional buttress supports [40]. As realized within the making of the garment, the volume of a pleat expands as fabric falls [41]. This is translated through the widening of the buttress base, providing increased support to the horizontal forces acting on the building from the surrounding soil.

This structure was then mirrored to the center of the museum and further adapted to become column-like forms that create a central atrium space. These forms stabilize the weight of the floor above, supporting the roof structure through the centre of the building [42].

40 // Uniform single box pleat.

41 // Expanding single box pleat used for retaining wall structure of the museum.

42 // Adapted pleated structure created for central columns.

43 // Skylight opening as inspired by the exploded fabric seam, ceiling plan.

44 // Skylight opening as inspired by the exploded fabric seam, axonometric.

45 // Detailed mullion axonometric, as influenced by the fabric seam.

46 // Ornamental detail of accent walls, as inspired by embroidery.

47 // Exhibition lighting frames, as influenced by beaded embroidery.

Le Musée des Métiers de la Haute Couture

“Haute couture is a great profession, with secrets whispered between initiates.”

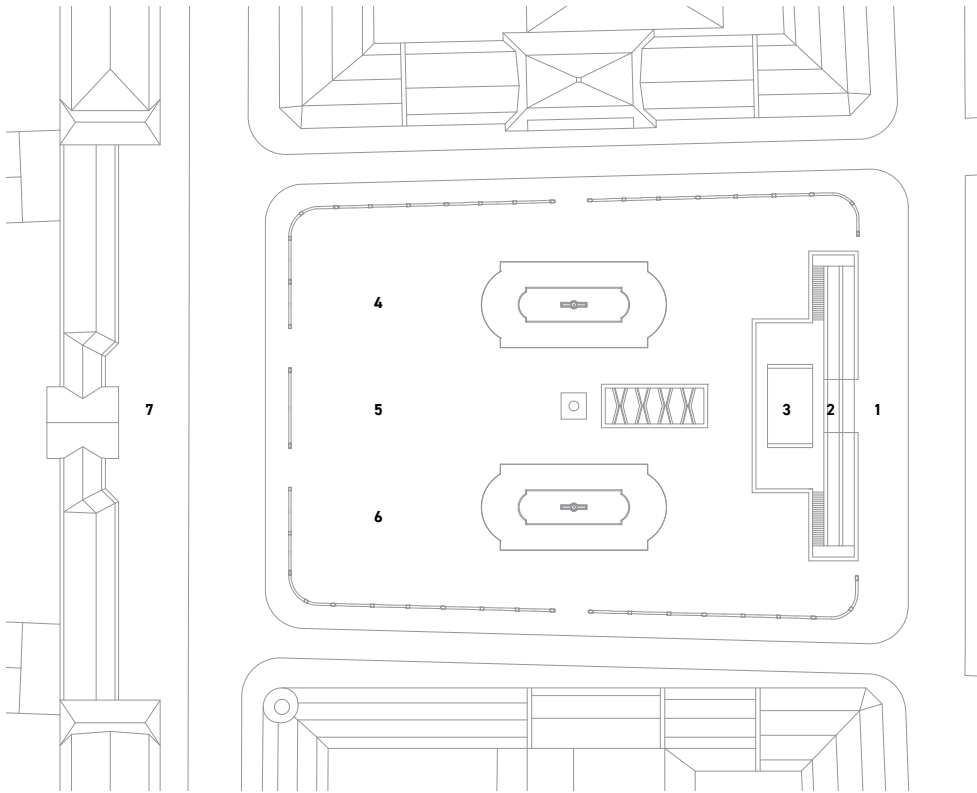
// Yves Saint Laurent

“They say fashion has Secrets? That if you find them, you can become a couturier? I’m not so sure. I prefer to speak of mysteries. Secrets can be passed on, but mysteries must be revealed.”

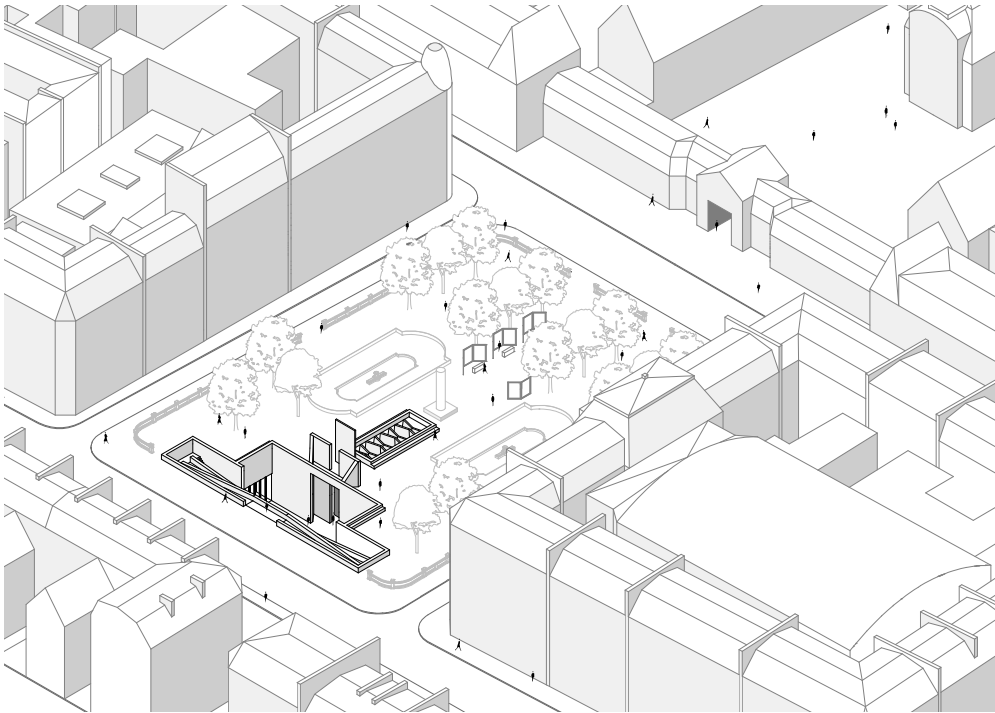
// Pierre Bergé

The Musée des Métiers de la Haute Couture is a museum devoted to uncovering the French craft of haute couture. To integrate the museum within the public realm, the museum program flows from below to above, integrating community based activities and events. Maintaining the existing activities of the park, the museum reintroduces retail kiosks, to which can be temporarily constructed for local craft markets. The metro entrance has additionally been reconstructed within the museum structure, integrating public transportation and introducing accessibility to the subway lines.

- 1** Museum Entrance
- 2** Metro Entrance
- 3** Sunken Courtyard
- 4** Pétanque Sand Pits
- 5** Craft Market
- 6** Children’s Park
- 7** Musée des Arts et Métiers

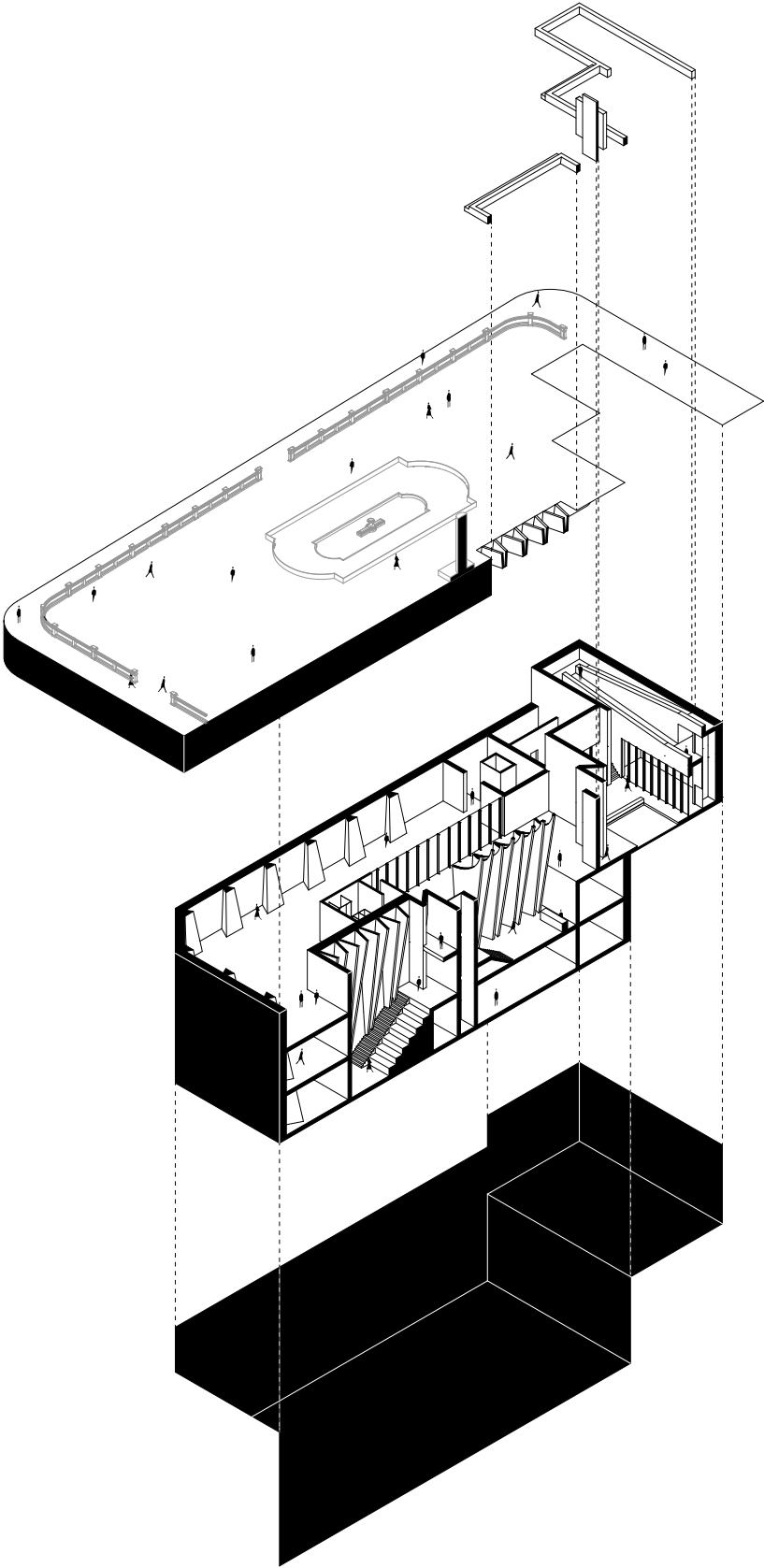


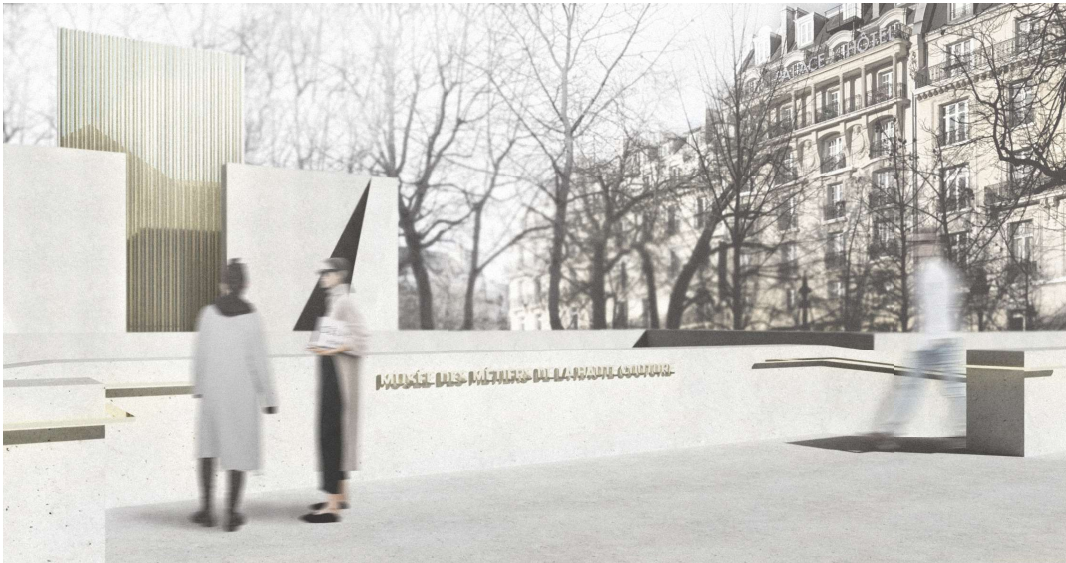
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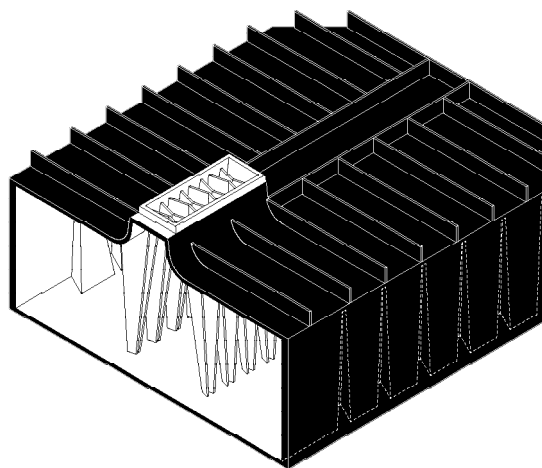
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48 // Site program mapping,
1:1000m scale.
49 // Axonometric drawing
of the site and surrounding
buildings.





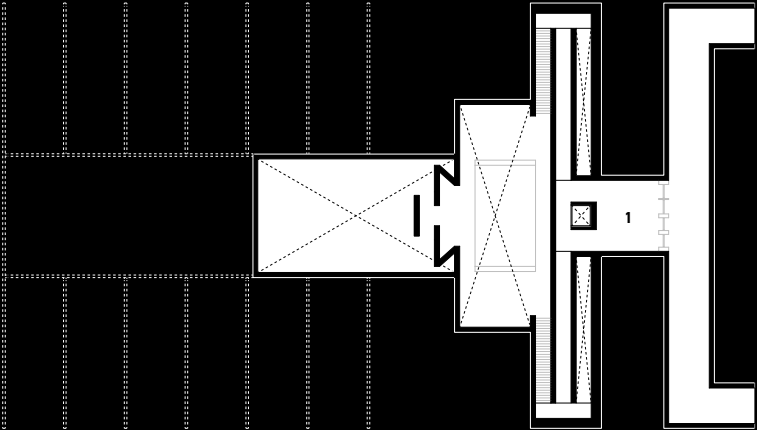
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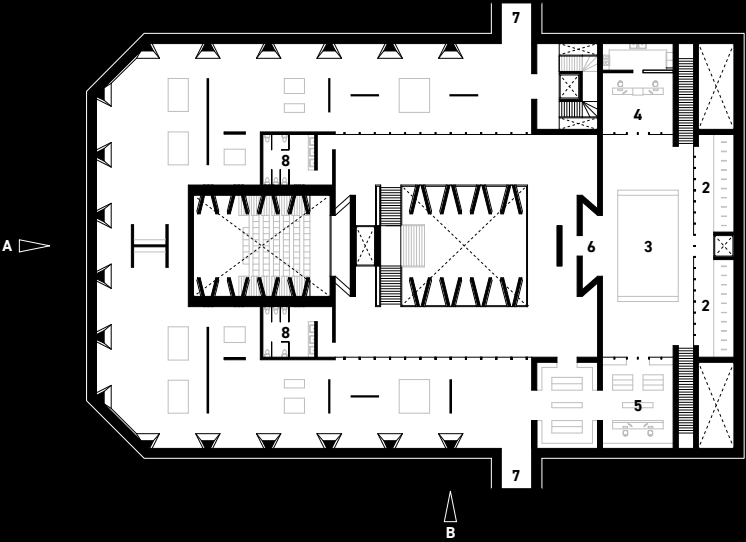
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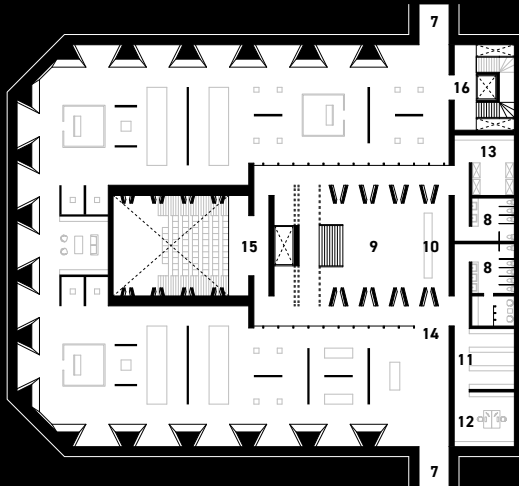
50 // Exploded sectional
axonometric drawing of the
museum
51 // Render of the park
entrance to the sunken courtyard.
52 // Axonometric drawing of
the encasing museum structure.

53 |

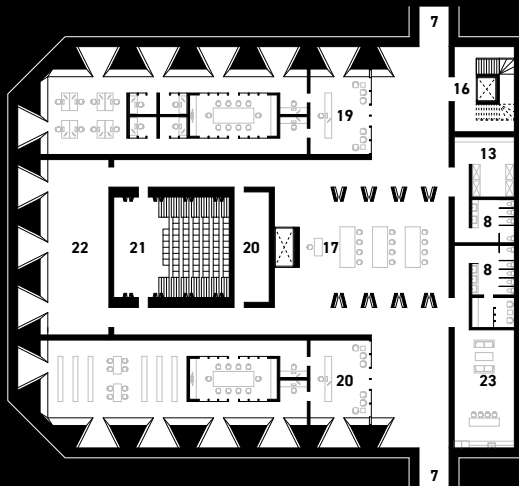


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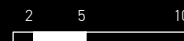
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Space Index

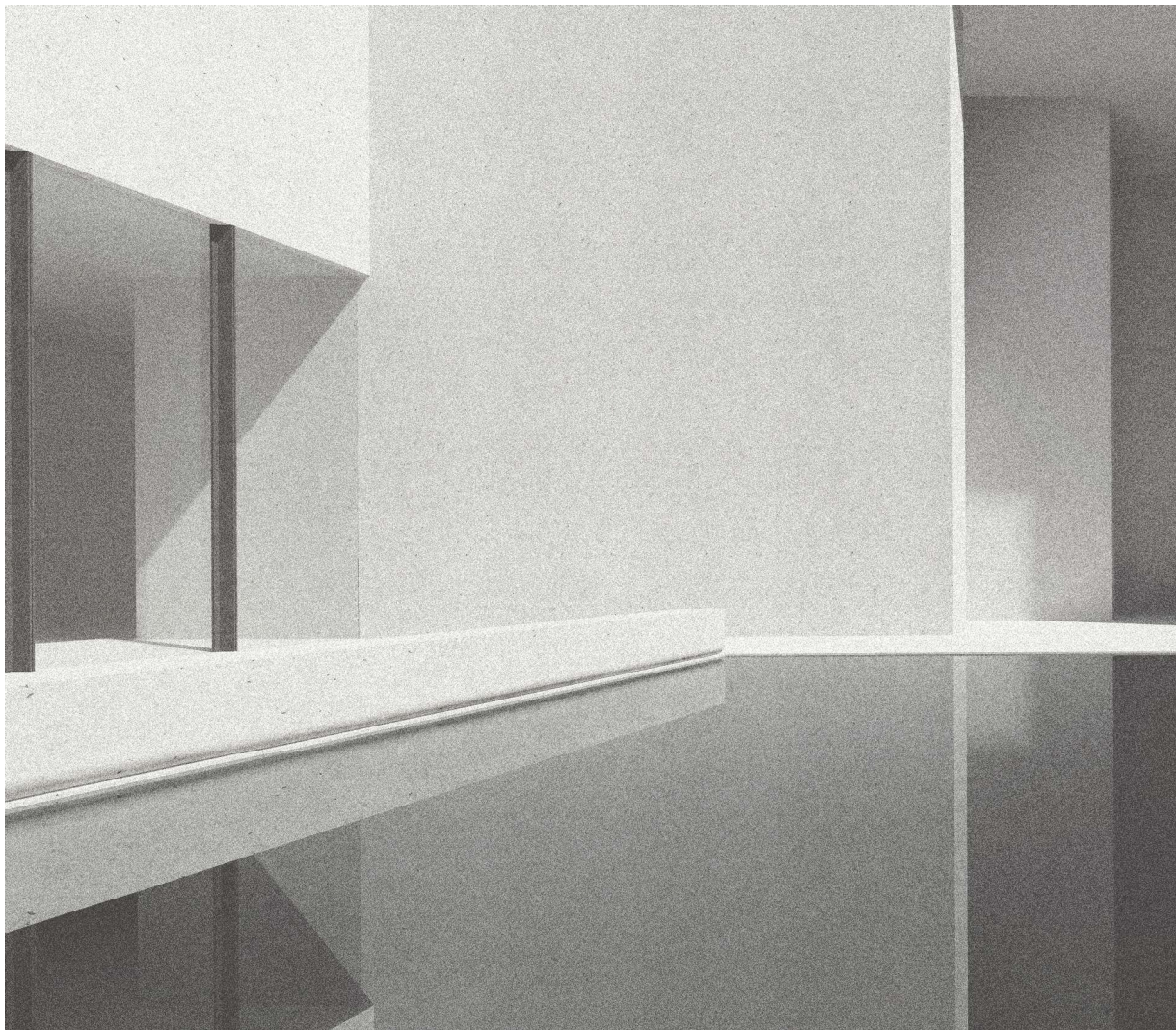
- 1 Metro Entrance
- 2 Public Bike Storage
- 3 Sunken Courtyard
- 4 Cafe
- 5 Gift Shop
- 6 Museums Main Entrance
- 7 Emergency Exit
- 8 Public WC
- 9 Main Atrium
- 10 Reception / Ticket Sales
- 11 Coat Check
- 12 Security
- 13 Janitorial Closet
- 14 Exhibition Entrance
- 15 Auditorium Entrance
- 16 Staircase A
- 17 Public Workshop
- 18 Workshop Storage
- 19 Museum Offices
- 20 Museum Archives
- 21 Auditorium
- 22 Mechanical / Electrical
- 23 Staff Room

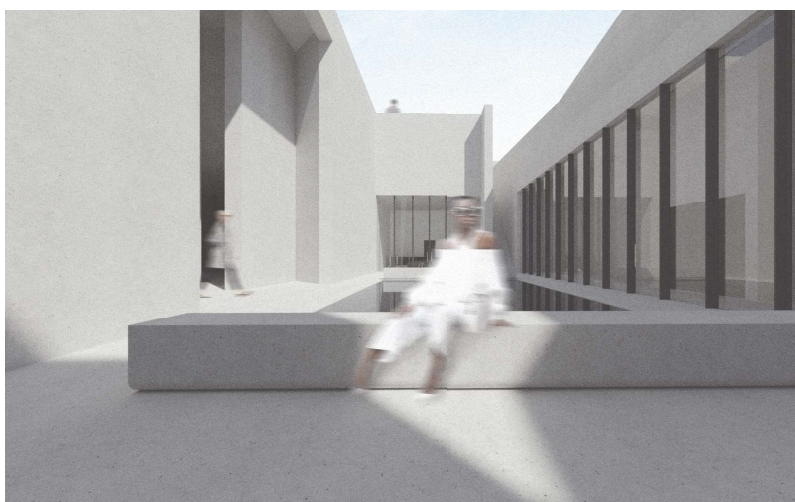
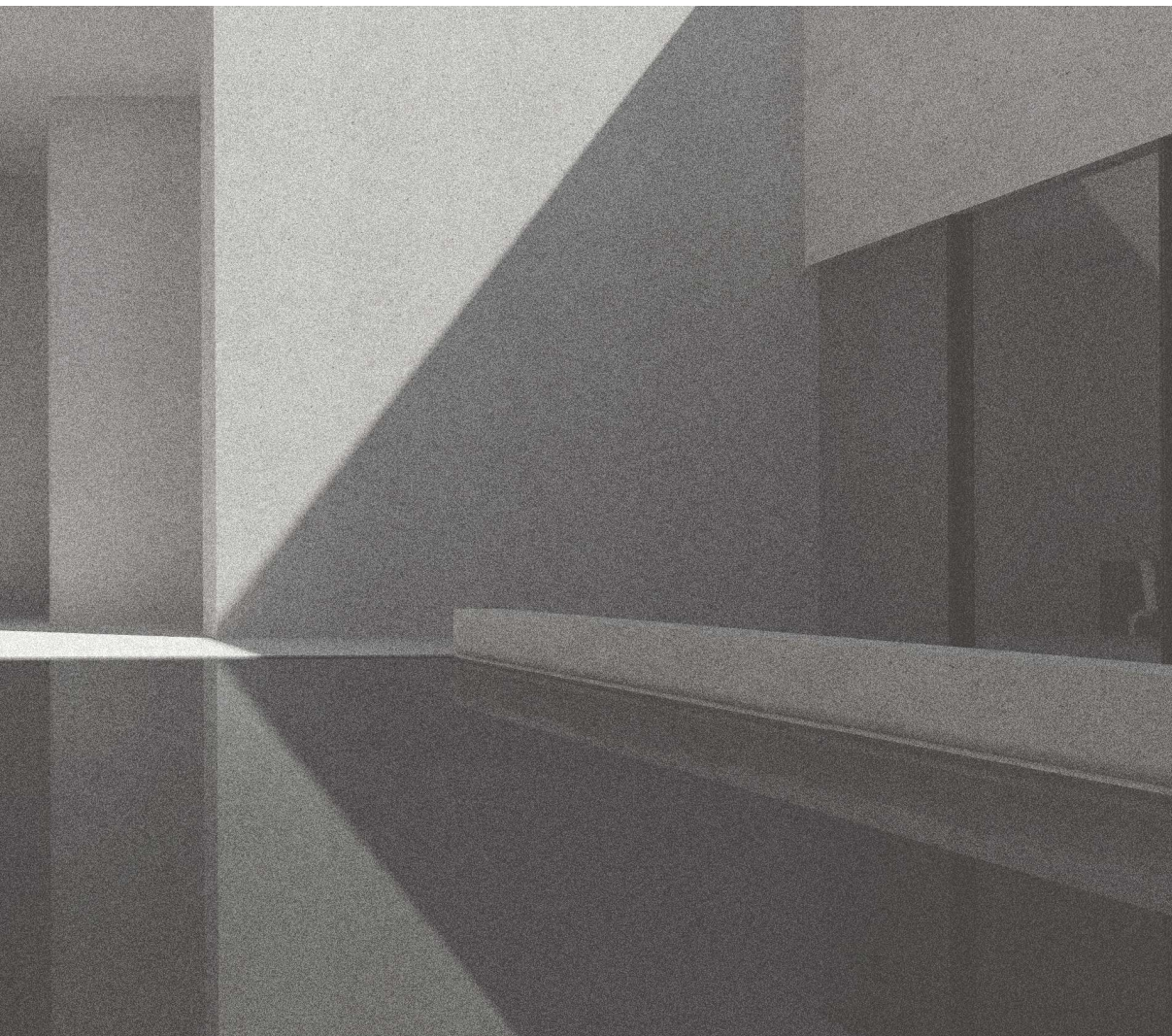
| 56



1 : 750 m

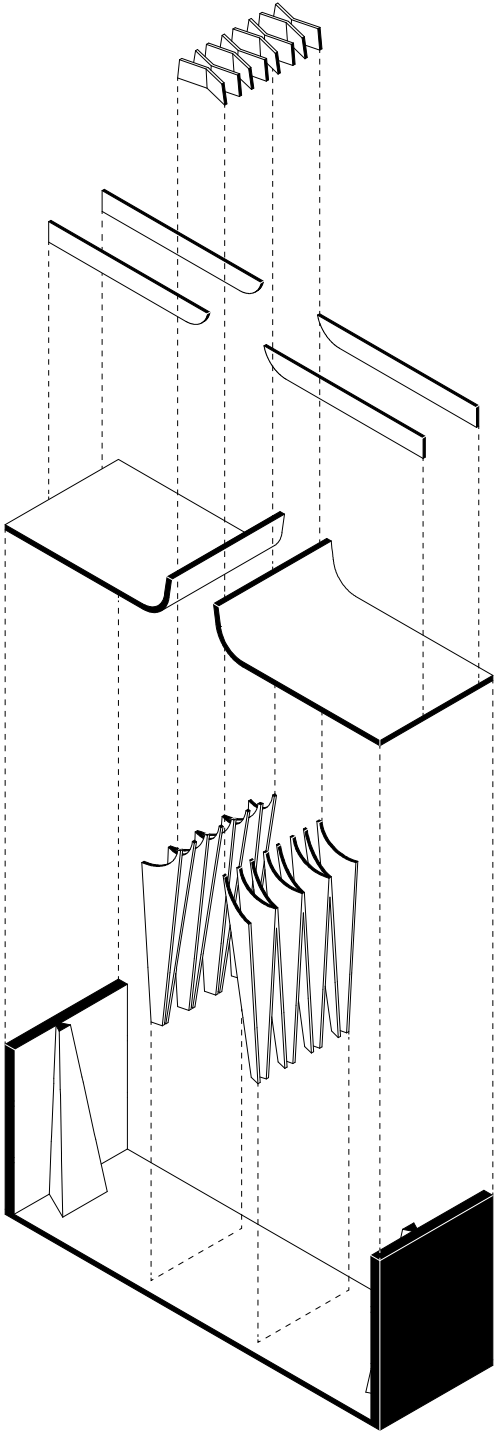
- 53 // -1 Floor plan, 1:750m.
- 54 // -2 Floor plan, 1:750m.
- 55 // -3 Floor plan, 1:750m.
- 56 // -4 Floor plan, 1:750m.





58

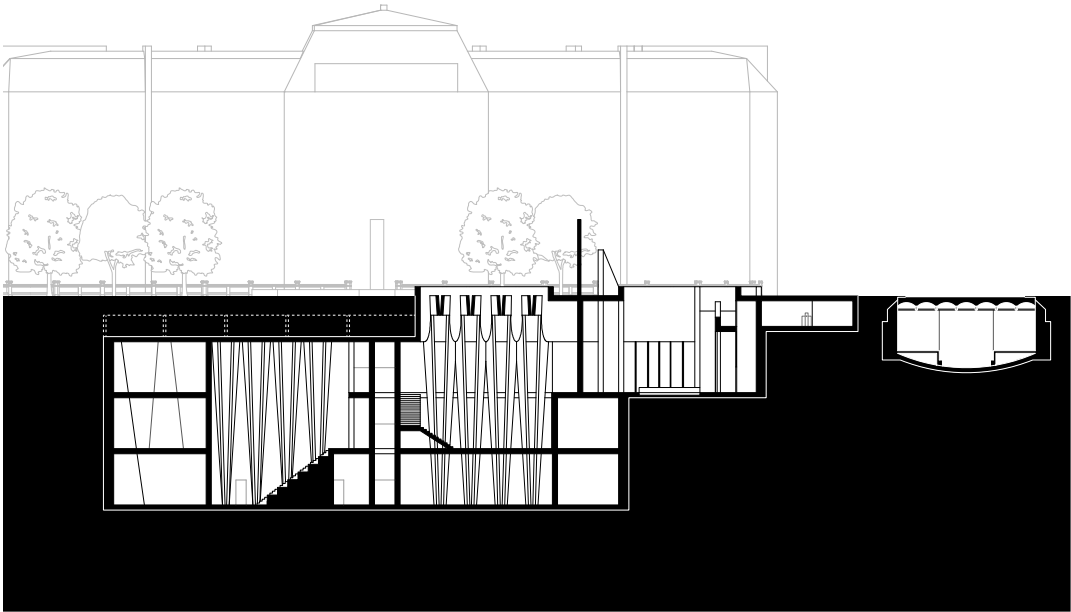
57 // Render of the main
museum entrance and reflection
pool.
58 // Render of sunken
courtyard.

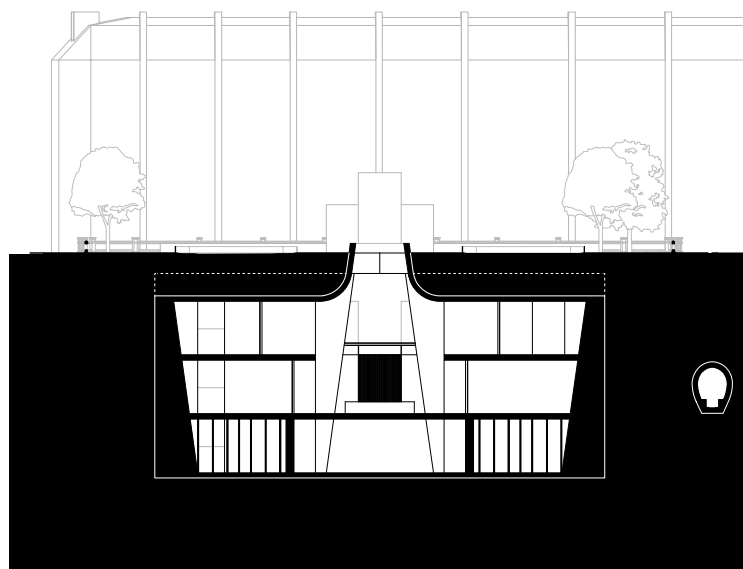




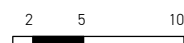
60

59 // Exploded structure
axonometric drawing describing
formal the central forms.
60 // Render of the main
atrium space.





| 62



1 : 750 m

61 // Section A, 1:750m
62 // Section B, 1:750m





CONCLUSION

The Conclusion

“A detail which I had inserted without thinking, and which had become lost in the course of the execution of the dress, will emerge miraculously under the pencil of the artist or through the objective lens of the camera, as a result of a curious angle or unexpected lighting. Perhaps these revelations are a proof of the independence of my creations from their creator.”¹

// Christian Dior

As a way to reconnect to modes of manual production, this thesis explored the hand as an integral contributor to material manifestations, that is capable of grasping a world beyond what the mind can comprehend. The hand, the making and the project were part of a process of embodied knowledge that offers several advantages to the designer. This process increases proficiency in material understanding, allowing for improved experimentation and improvisation with physical characteristics and capabilities. Such dedication to quality additionally develops ethical skills, acquiring personal attributes, such as patience, generosity, and compassion.

When considering craft research through interdisciplinary translations, one can begin to unveil narratives that would otherwise remain unrealized. Preconceptions were present prior to the manual process methods of this thesis, presupposing how materials would react based upon the literary research. The manual making of the garment revealed what cognitive processes could not account for. For example, sketches of various pleats were created in an attempt to understand the standard forms and patterns of fashion; however, upon making the garment, it was realized that the form of the pleated fabric varies in volume, expanding as it falls. This realization altered the overall structure of the retaining walls of the museum, providing stability to the buttresses through the widening and slanting towards the base. Several of these discoveries occurred through this tactile design method.

In conclusion, the manual explorations of craft can offer numerous advantages to architectural design process, and further realizations can be made through translations of parallel disciplines, such as architecture and haute couture.



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